Pennsylvania Turnpike Commission

Service Order Management System

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Harrisburg, PA 17111

Last Updated: 10/08/2002

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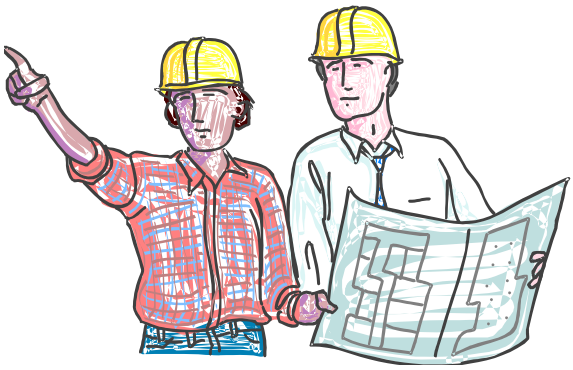
Section 1

Introduction



The Service Order Management System (SOMS) allows PA Turnpike personnel to create, plan and produce reports on planned maintenance activities and unplanned maintenance work requests. Work Requests are 'cost and time' estimated and each request is assigned a completion priority. Each request is monitored from creation to completion.

Overview

The Service Order Management System is a data entry and reporting application, which provides Pennsylvania Turnpike Commission Maintenance personnel the ability to create Work Requests from the Annual Preventive Maintenance Plans and facilitate the tracking and execution of Emergency and Non-Recurring Work Requests.

Service Order Management System addresses the following points of the Maintain Highways and Facilities Process Definition:

a. Integrate with results of Develop Annual Work Plan
b. Identify Work Requirements
c. Plan Initial Work Requests
d. Prioritize and Program Work Requests
e. Complete Detailed Work Orders
f. Schedule Work Orders
g. Execute Work Orders
h. Close Work Orders

Integrate with results of Develop Annual Work Plan

The Service Order Management System integrates with the annual maintenance plans developed for Highway and Facilities. These plans consist of preventive maintenance activities to be distributed throughout the 12 calendar months of the next fiscal year. Once the plan has been reviewed and finalized, work orders are generated in the Service Order Management System.

Identify Work Requirements

This process provides a single point of contact to formally request non-recurring repairs and service to PTC highway and facilities. The single point of contact is the service request taker during business hours and Network Control Operator during off-hours. For highway requests the service request taker is the district operations manager. For facilities requests the service request taker is the district trades superintendent.

There are two means of receiving a maintenance work request:

Request by Telephone

Receipt of a Service Request Form authorized by the appropriate personnel.

Only work requests, which require an Emergency (immediate) or Urgent (within current planning cycle) response, are to be accepted via a telephone call. All other requests (Routine) are to be submitted via Service Request Form and routed through the appropriate personnel for authorization after review and approval by the service request taker.

When a valid request is received, the service request taker approves the request for logging in the Service Order Management System (SOMS). If the request is classified as an Emergency, the service request taker also contacts the appropriate person directly at the District for facilities work, or at the Section for highway work, so that action can be taken immediately. Routine and Urgent requests logged into SOMS are automatically routed to the Central Office Planner's New Request Queue for Initial Planning approval. Emergency requests are routed to the appropriate Facility or Section Queue and are listed in the Emergency Work Request Queue for three days or until they are closed, whichever is longer.

Plan Initial Work Request

When a non-recurring request is classified as routine, the request flows into the Plan Initial Work Request process. This process is used to perform an initial analysis to determine what needs to be done to satisfy the request. Estimated resource requirements, further categorization and other information are added to formulate a work plan. Additionally, the request is reviewed to ensure that it is not a redundant request or overlaps efforts detailed in an active Capital Project.

Once the non-recurring request has been initially planned, it is added to the list of recurring work orders for Prioritization and Detail Planning.

Prioritize Work Requests

This process is where the Central Office Planner assesses the current workload of planned recurring and non-recurring maintenance and routine work requests. The Central Office Planner determines what work requests can be performed for a given month based on resource availability and urgency.

The Central Office planner prioritizes all the work requests for any given planning month according to labor allocations made in the initial work plan. When satisfied, he releases the requests to be detailed by the appropriate Operations Managers at each of the Districts. The request is now considered a Work Order. The Work Orders to be detailed appear in the appropriate Operations Manager's queue until it is Detail Complete.

Complete Detailed Work Order

This process is done at the District level and completes the final planning and definition of the work order. This includes detailing and acquiring any non-routine equipment, materials or resources. Once the work order is detailed, the planner (Operations Manager) marks it Detail Complete and, possibly, Material Complete. Material Complete is defined as making final arrangements for procurement and delivery of necessary materials, tools, and equipment, and scheduling the necessary contractors. If not Material Complete, the work order will reside in the Resource Manager's queue until it is Material Complete.

When the Detail Plan costs are $5000 or 50% more than the total Initial Planned costs, the request will be marked Detail Complete – Pending and routed to the Central Office Planner for approval of the variance. When required this approval must be obtained before the request can be routed to the Resource Manager or marked material completed. When the work order is marked Material Complete, the variance is checked again. If the detail plan total cost is $5000 or 50% more than the total Initial Planned costs or the last approved variance value, then the work request is marked Material Complete - Pending and routed to the Central Office Planner for variance approval. If approved, the status changes to Material Complete.

Once the Work Order is Detail and Material Complete, it moves to the District Work Order's Queue. Here the District Manager fine-tunes, approves planned labor requirements, then releases for scheduling. Released Work Orders automatically rout to the Section and Facility Queues for crew assigning.

Schedule Work Orders

Emergency / Urgent Work Orders:

Emergency work orders are scheduled, coordinated and dispatched immediately following a call from the Service Desk Request Taker or Network Control operator.

Recurring and Routine Non-recurring Work Orders:

First the District Operations Manager releases detailed / materially complete work orders to the Section Foreman and Trades Supervisor. When dealing with Highway work orders, the Operations Manager schedules a batch of work orders for each Section for the next month. Once these work orders are scheduled, they appear in the Section Foreman's queue. When dealing with Facility work orders, the monthly-load of work orders is released by the Operations Manager and appears in the Trades Foreman's queue.

Execute Work Order

Next, the Trades Supervisor and Section Foreman must break down the monthly plan into weekly and then daily plans. This consists of selecting and coordinating the appropriate personnel to execute the work orders; and verifying that the required material and equipment is available.

On a daily basis, the supervisor reviews the remaining workload for the month, takes into account the weather conditions for the next day (when appropriate), and then develops the daily plan for the next day. The next day daily planning includes assigning personnel and equipment necessary for executing the work order, and then notifying the crew leader or trades person of the next day (possibly weekly) assignments.

Work is performed to satisfy the work order. Labor hours and materials usage is logged into SOMS daily. The following activities are addressed and facilitated by the system:

a. Request by Telephone

b. Provide instructions and the required materials and equipment list. This information is included on a hard-copy work order generated from the system by the supervisor for assignment.

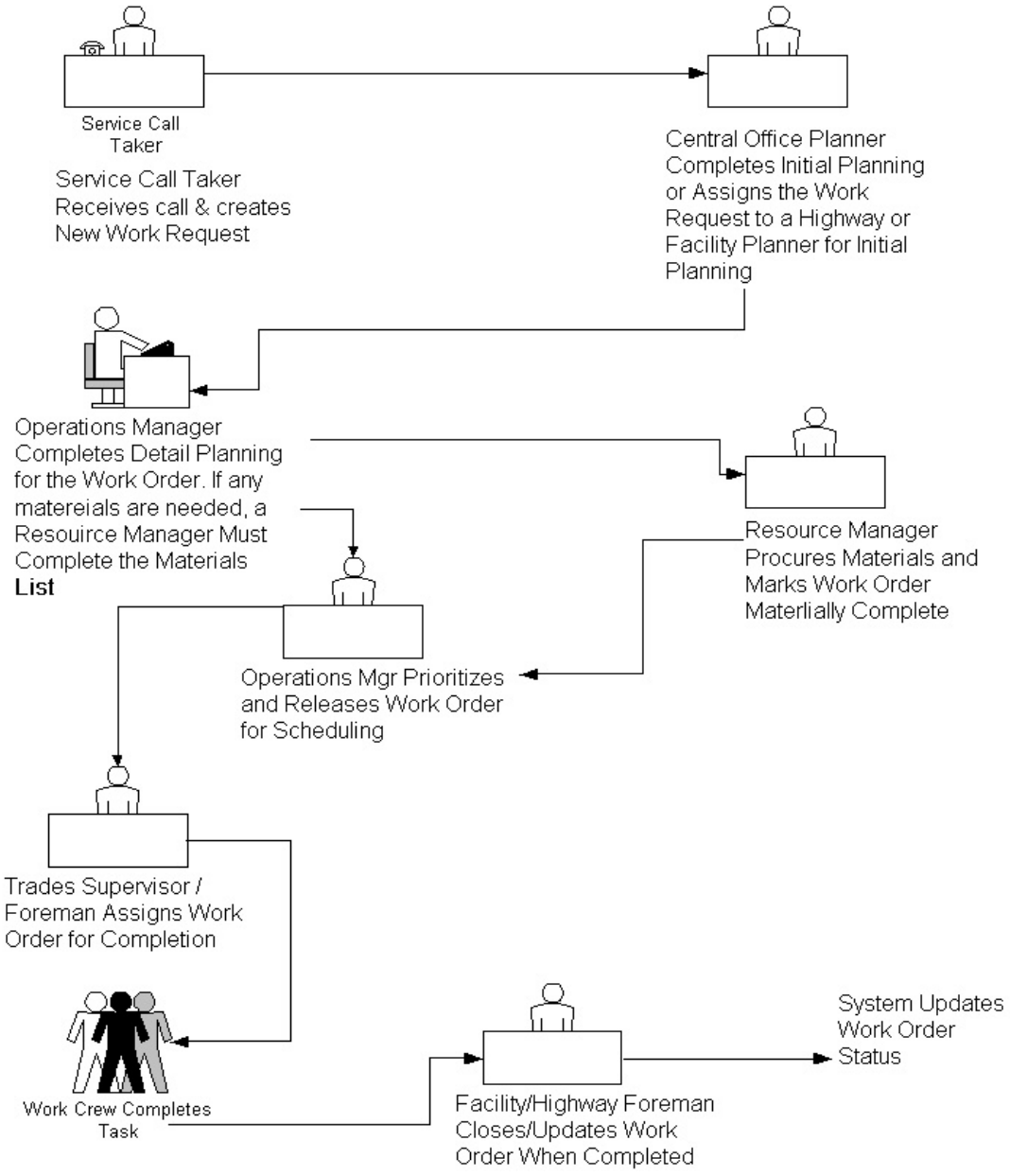
c. Inspect for quality assurance and completion. Fields are available on the Work Order screen to allow for Inspected By and Inspection comments.

d. Report status and completion of work. Status, labor, material used and production units, can be entered on the work order screen on a daily basis.

What is a Queue?

A queue is a group of service requests that are waiting to be processed. SOMS will group the work requests based on type of work and location, and displays the contents of each Queue on specialized screens, specific to the needs of the individual user.

System Flow Chart


Service Call Taker
Service Call Taker Receives call & creates New Work Request
Central Office Planner Completes Initial Planning or Assigns the Work Request to a Highway or Facility Planner for Initial Planning
Operations Manager Completes Detail Planning for the Work Order. If any matereials are needed, a Resouirce Manager Must Complete the Materials List
Resource Manager Procures Materials and Marks Work Order Materlially Complete
Operations Mgr Prioritizes and Releases Work Order for Scheduling
Trades Supervisor / Foreman Assigns Work Order for Completion
Work Crew Completes Task
Facility/Highway Foreman Closes/Updates Work Order When Completed
System Updates Work Order Status

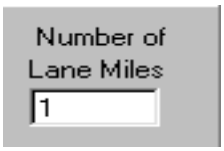
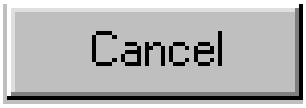
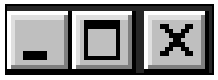
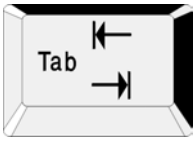
General System Controls and Functions

SOMS uses standard windows controls and buttons. Each process is accessed from either the Main Toolbar **(Figure 1.1)** or the Menu Buttons. **(Figure 1.2)**

Figure 1.1 - Main Tool Bar

Figure 1.2 - Menu Buttons

The table on the following page contains a general description of command buttons and controls that are used throughout SOMS.

Button or Control	Description	Behavior
	Data Grid List	This is a list of items to select from. Point the cursor on the desired item and left-click the mouse button, or double-click the left mouse button. This displays the desired item.
	Data Entry Field	Move the cursor into the field and left-click the mouse button. Enter the desired text or data.
	Drop-down List	Point the cursor on the arrow button and left-click the mouse button. This displays a list of items to select from.
	Form Tab	Point the cursor on the desired tab and left-click the mouse button. This displays the desired form.
	Command Button - OK	This button will save any changes you have made and return you to the previous screen, submit search data, or enter choices made from a list. Point the cursor on the desired button and left-click the mouse button to perform the button's function.
	Command Button	This button will close the current screen without saving any changes you have made. Point the cursor on the desired button and left-click the mouse button to perform the button's function.
	Check Box	A check box is an indicator that allows the user to verify that required information is included. Point the cursor on the desired check box and left-click the mouse button to fill in the box.
	Radio Button	This serves the same function as a Check box. Point the cursor on the desired radio button and left-click the mouse button to fill in the circle.
	Toolbar - Minimize, Maximize, Close	Standard buttons that allow certain forms to be minimized, maximized and closed. Some forms may not have a 'Closed' or 'OK' button to close the form. They can be closed through the X button.
	Tab Key (Keyboard)	Standard button function that moves the cursor from one field or control button to the next. Tab order is usually from left to right and top to bottom.

Button or Control	Description	Behavior
Ctrl + X	Control Key + X (Keyboard)	Standard Windows function that cuts selected text or objects from a form or document. Drag the cursor over the text with the left mouse button depressed. Press both keys at the same time.
Ctrl + C	Control Key + C (Keyboard)	Standard Windows function that copies selected text or objects from a form or document. Drag the cursor over the text with the left mouse button depressed. Press both keys at the same time.
Ctrl + V	Control Key + V (Keyboard)	Standard Windows function that pastes cut or copied text or objects from a form or document into another. Place the cursor at the insertion point and press the keys at the same time.

Expanding Data Grid Columns

There are columns in certain data displays that will not display all of the information in the grid when it is first opened. To view the contents of a grid row that is not fully viewable:

1. Move the cursor over the column title until the arrow changes to a double-sided directional indicator. **(Figure 1.3)**

Figure 1.3 - Expanding Data Grid Columns

2. Left-click the mouse button. Hold the button down and drag the cursor to the right to expand the column. This will display any hidden text in the column. **(Figure 1.4)** The program will remember the column widths each users sets for every grid. Each time the user returns to a screen the grid will be sized to their personal settings.

Figure 1.4 - Expanding Data Grid Columns

Lists and Data Grid Views

Many of the data grids and lists hold large amounts of information. The viewable area for some grids is limited to the size of the grid box. Horizontal and Vertical Scroll Bars are available to scroll through the remaining information. **(Figure 1.5)**

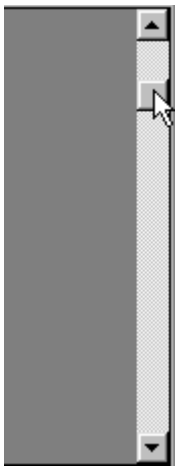


Figure 1.5 - Vertical Scroll Bar

To view the entire contents of a list or grid that employs the use of a scroll bar:

1. Left-click the mouse while pointing on the center slide control button.
2. Hold the mouse button down and slide the button along the bar to view the list or grid.

Section 2

Launching the SOMS Application

Two interfaces are currently in use to access the SOMS application; LAN connected PC's and Windows Terminal units (Win Term's). LAN PC operators can double click the SOMS icon on their desktop and they will be presented a Central Server sign on screen, shown in **Figure 2-1**. Enter the same user name and password used to log into the LAN. After successfully signing into the LAN Citrix Servers, the SOMS application login screen (**Figure 2.2**) is displayed. Win Term users should select SOMS from the Windows ***Start/Programs*** menu options. This will display the SOMS application login screen as shown in **Figure 2.2**.

Figure 2.1 - Citrix LAN Password Prompt

SOMS Login

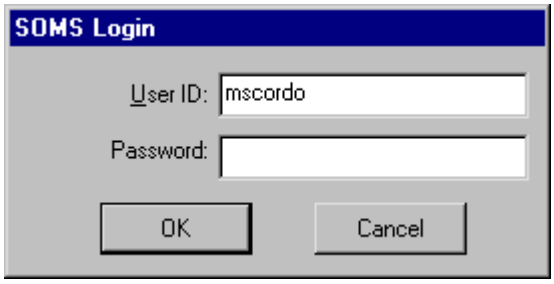


Figure 2.2 - Login Screen

New users will be asked to change their password when first starting the application (**Figure 2.3**). The Password Change Screen can also be selected at any time by using the Utilities - Change Password menu option on the Main Screen. When changing the password both the New Password and Confirm Password textboxes must match. The password is case sensitive, therefore PASSWORD and PaSsWoRd will be treated as different passwords.

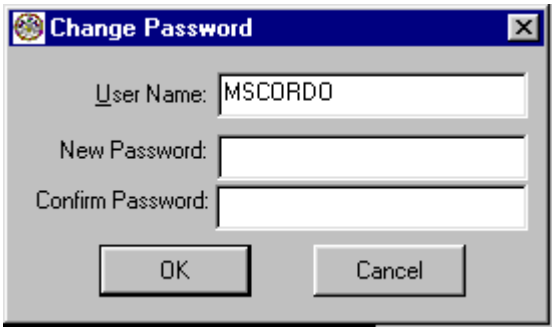


Figure 2.3 - Password Change Screen

System Alerts

System Alert messages provide the SOMS Administrators and IT Staff a method to communicate with all SOMS users. Active messages (**Figure 2.4**) will be displayed to each user after he or she completes the user login (**Figure 2.2**). The message Icon indicates the general nature of the message. The expiration date indicates the last day the message will be displayed. Click the Close button when finished reading the messages. System Alerts can be manually checked at any time within SOMS through the Menu Bar Help menu option, System Alerts, or by pressing the Ctrl + F1 key combination.

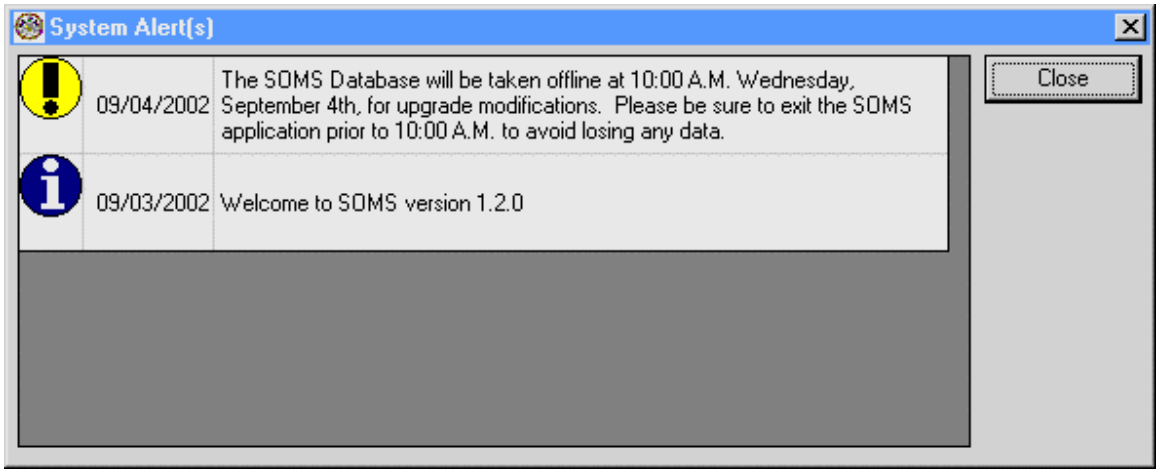

System Alert(s)
09/04/2002
The SOMS Database will be taken offline at 10:00 A.M. Wednesday, September 4th, for upgrade modifications. Please be sure to exit the SOMS application prior to 10:00 A.M. to avoid losing any data.
09/03/2002
Welcome to SOMS version 1.2.0
Close

Figure 2.4 - System Alert Message Screen

System Control Panel

Administrators can open the System Control screen (**Figure 2.5**) through the Utilities/System/General menu options. The System Control screen consists of two panels, System Messages and System Values.

System Messages Panel

The System Messages Panel (**Figure 2.5**) contains all the controls needed to create, edit and delete messages. To create a message, Select New, and type the message into the associated text box. Choose an Icon to go with the message from the drop down box on the left. Set the expiration date for the message with the date selector field. Select Save. To edit a message, select the message in the list above and edit the text in the text box below. To delete a message, select the message in the list above and select Delete.

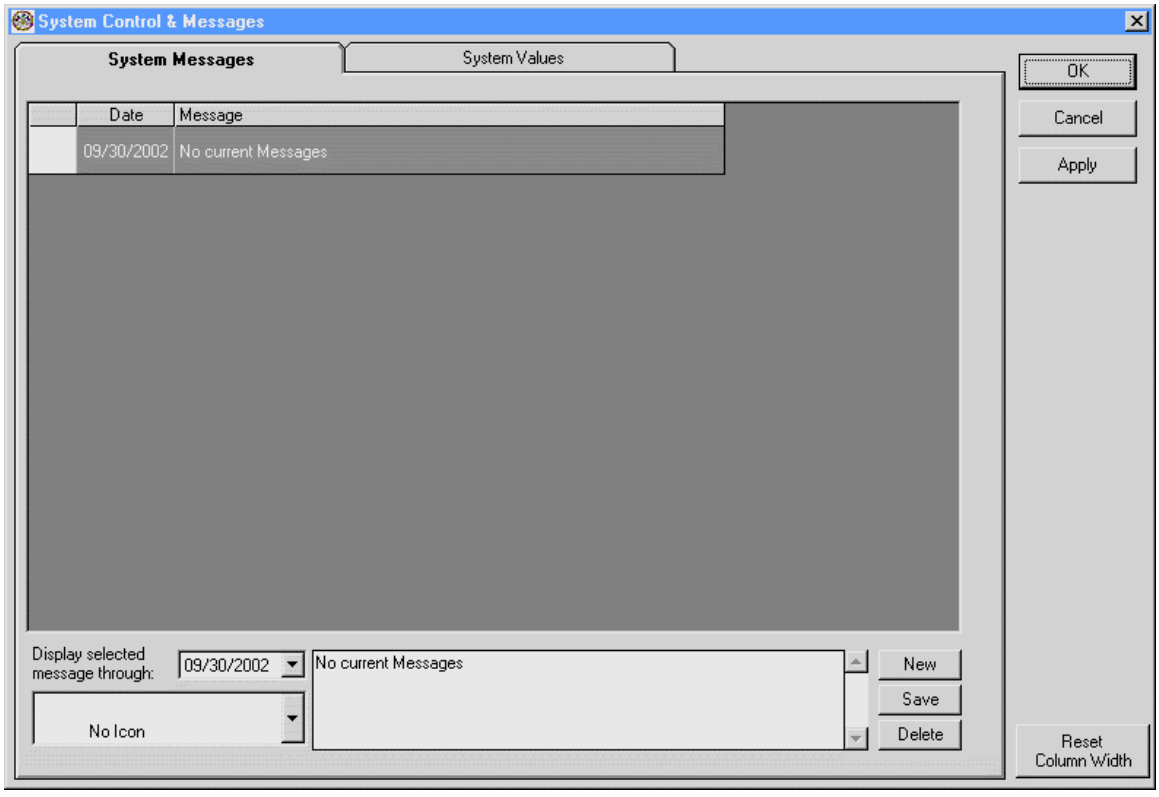


Figure 2.5 - System Control & Message Screen

System Values Panel

The System Values Panel (**Figure 2.6**) contains fields for setting the application version number, system status, Help Desk phone number, and a default path for saving stored search files.

A verification function exists in the program to ensure that only the most current version of the program is capable of being used with the database. Each time the program is revised the version number is incremented. The first time that the new version is run it will abend and if the user has administrator priviliges, the system control panel will be displayed. At this time the administrator can increment the application version number to be stored in the database via the Major, Minor and Revision fields.

The Current System Status setting provides the administrator a means to take the program offline. By setting the status to DOWN and providing a System Alert message, users will see the Alert Message after logging on and then the program will not start.

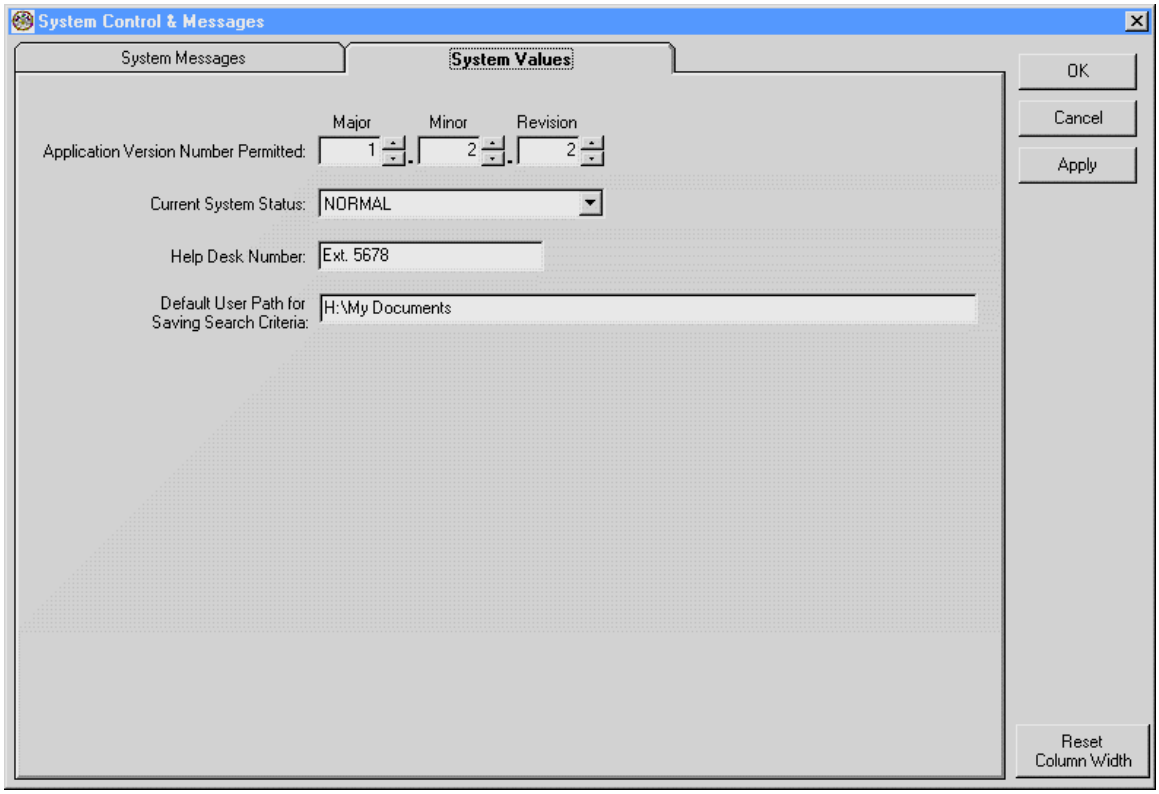


Figure 2.6 - System Values Panel

The Help Desk Number field is a convenient place to store the relevant phone number to be displayed to the users in error messages.

The Default Storage location is used to control where a user's saved search criteria files are stored.

Section 3

Main Screen

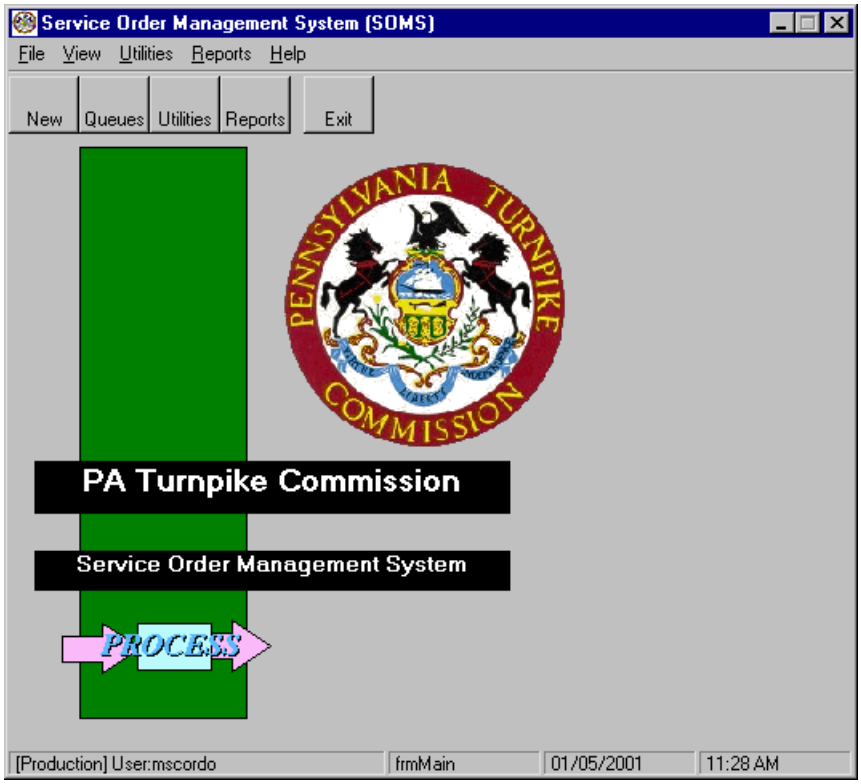


Figure 3.1 - Main Screen

The Service Order Management System (SOMS) is a user specific application. Menu selections and screen content will differ depending on a user's Position Title and User Level (security status). Certain fields and buttons may be visible, but not enabled for use, while other options may not be visible at all.

The SOMS main screen always opens as a generic form. The user is given the option to select a specific function from the menu buttons or the Main Toolbar**. All menu options are not available to all users. Only options available to the current user will be visible on this screen, according to their User Level.**

Menu Bar

Just under the Title Bar at the top of the screen is a Menu Bar containing 5 dropdown menus: File, View, Utilities, Reports, and Help. These menus can be used to navigate through the SOMS program. For convenience, however, many of the menu options have been incorporated into 5 buttons that appear just below the Menu Bar.

Three options from the File Menu are not available from the Menu Buttons. These are the Open, Search, and Print features. **(Figure 3.2)**

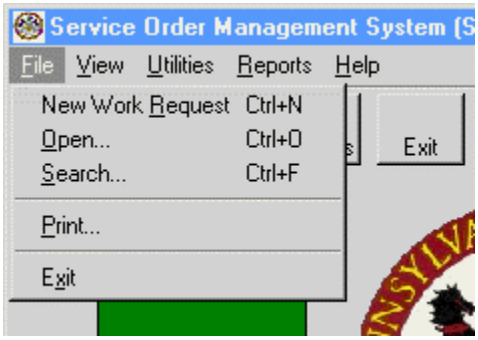


Figure 3.2 - Main Screen – File Open

File Open

This menu selection allows the user to quickly find an existing Work Request when the number is known. **(Figure 3.3)**

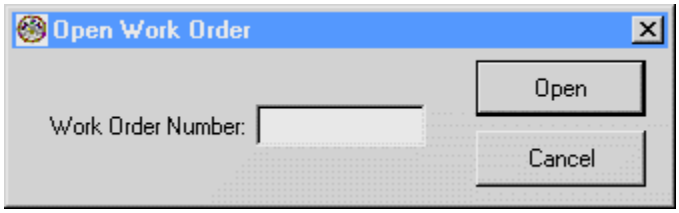


Figure 3.3 - File Open

If the Work Order Number is known, simply enter the number into the **Work Order Number** field and click the **Open** button.

File Search

The Search Criteria Selection screen provides the User with a means to design very simple to very complex work order searches. Users may save any combination of criteria as a specific search by using the Save Criteria button and assigning a unique name for the search. SOMS will create a .ssc (Saved Search Criteria) file in the user defined folder

(defaults to H:\My Documents). Saved searches may be recalled at a later time via the Load Criteria button. This provides a convenient method of saving base searches or very complex searches which can be recalled quickly and further modified for a specific intent.

Start defining a search by chosing some facet of a work order from the Available Criteria selection box **(Figure 3.4)**. This box contains approximately forty data elements associated with the work orders. Then select Add Criteria and that criteria will become an element of your search. Continue adding criteria to the search until it contains sufficient criteria to return the desired work orders.

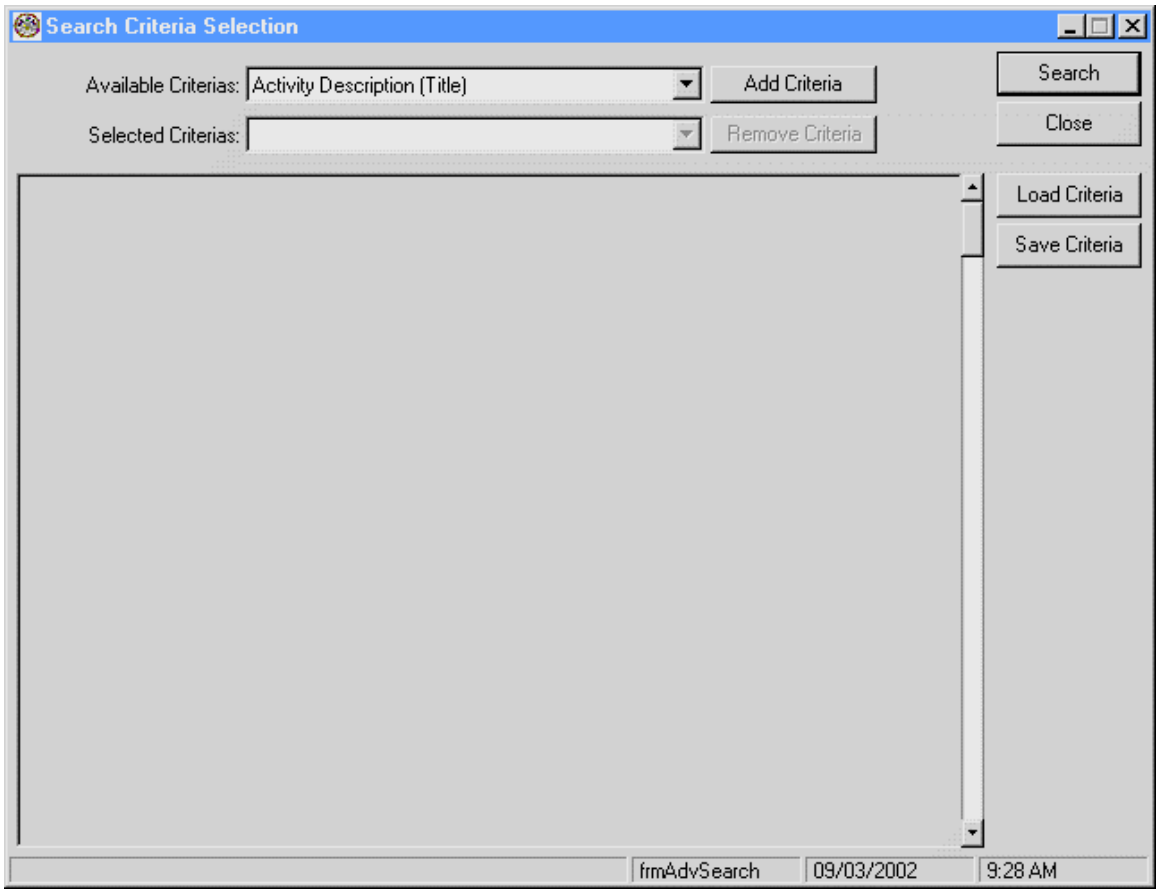


Figure 3.4 - File Search – Criteria Selection

Once the selection criteria have been defined, clicking on the **Search** button will present a list of all work orders that meet the criteria.

Double-click on the desired Work Request, or select from the list and click the **Open** button to view the selected Work Request in the Work Request Edit screen. The screen

will be opened in View Only mode unless your User Level would normally allow you editing privileges.

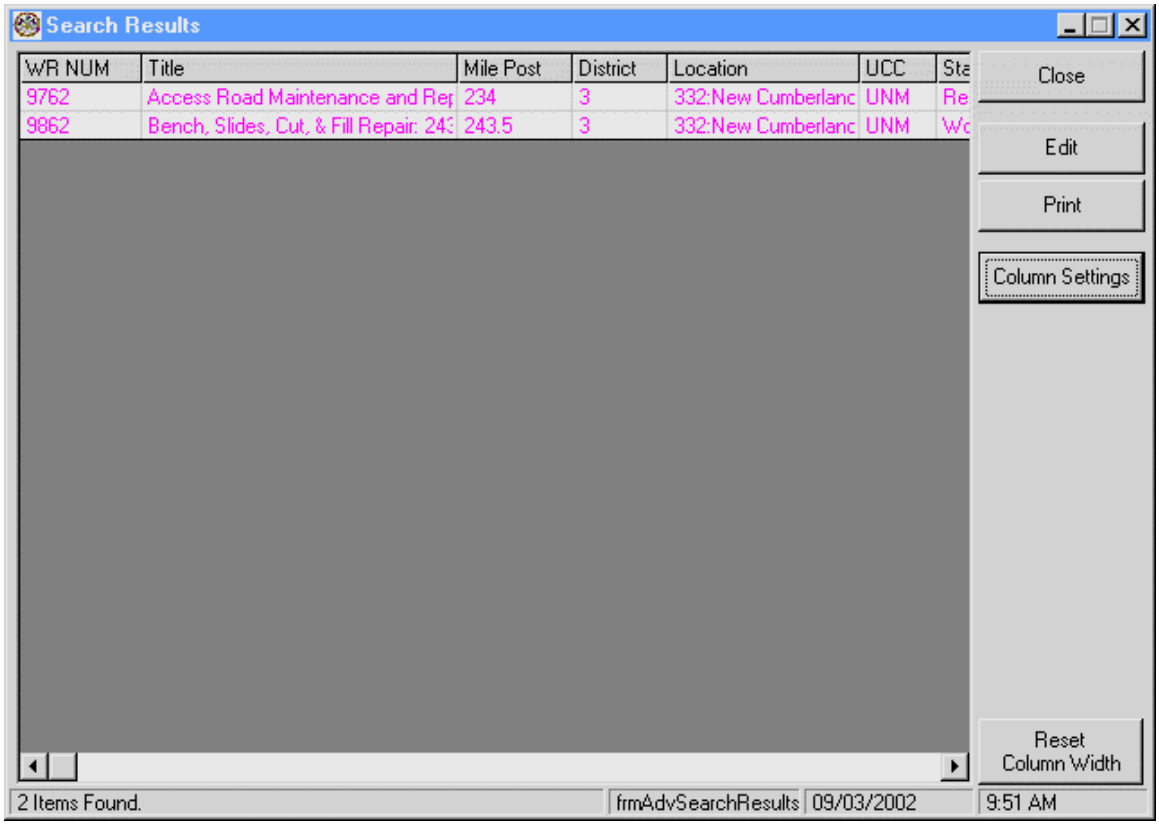


Figure 3.5 - File Search – Search Results

Note: Urgent work orders are displayed using magenta color.

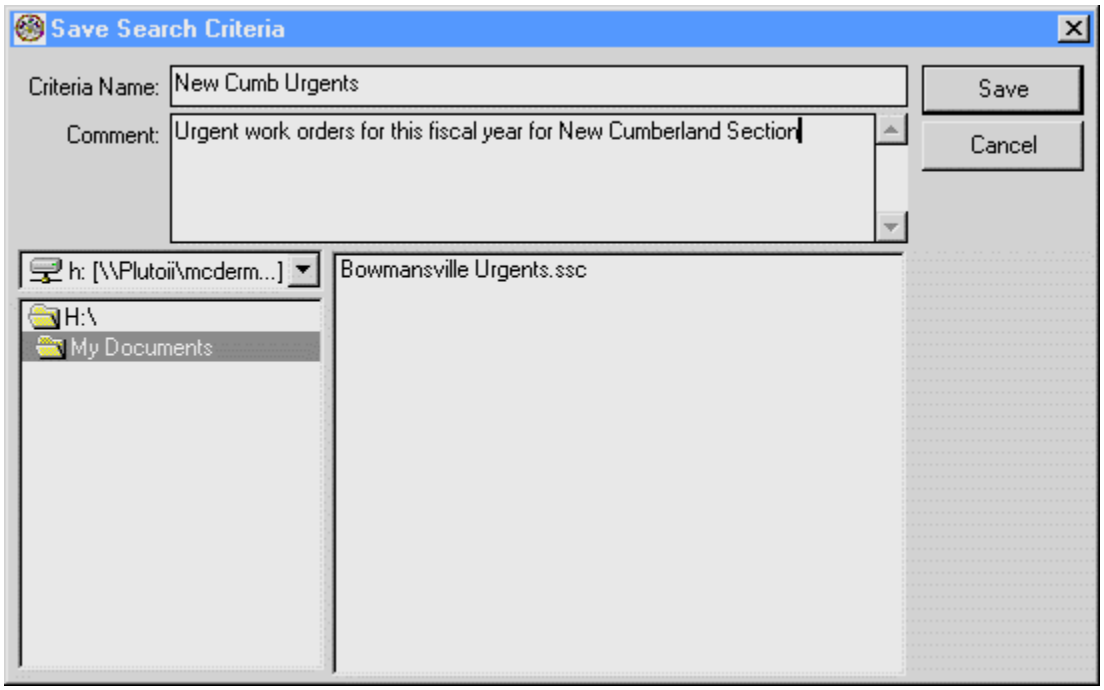
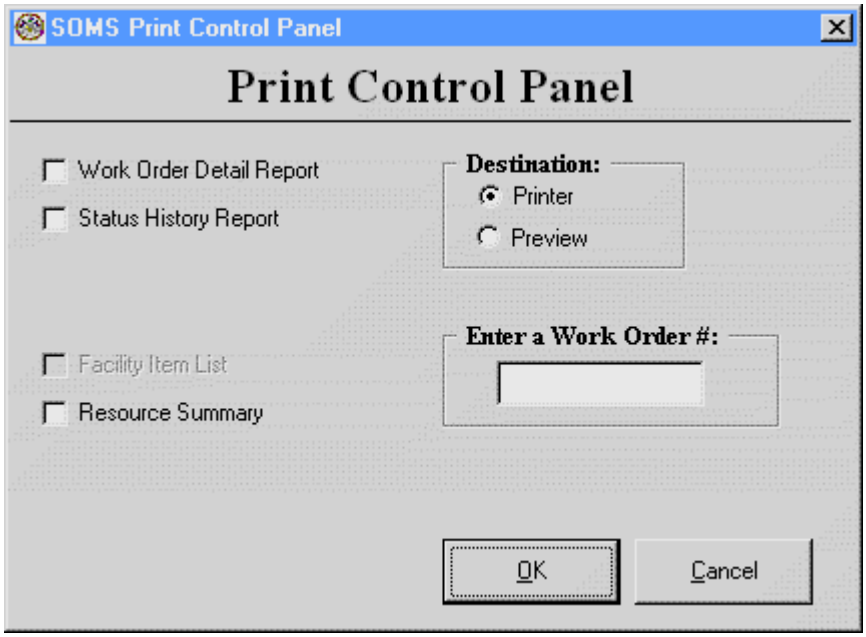


Figure 3.6 - File Search – Save Search Criteria

File Print

Choosing File Print displays the Print Control Panel which is used throughout the application to control printing most work order related reports. Each Print Control Panel may be configured slightly different depending upon the options that are available in the portion of the program you are working in.



Menu Buttons

For convenience, there are 5 buttons just below the Menu Bar that can be used to perform virtually every function provided by SOMS:

1. New (or select New Work Request from the File dropdown menu) - either button will create a new work request.
2. Queues (or select the View dropdown menu) - The menu options presented vary depending upon the user's security:
    - **e.** Draft Request Queue (All)
    - **f.** New Request Queue (SCT)
    - **g.** New Request Queue (COP)
    - **h.** New Request Queue (FP)
    - **i.** New Request Queue (HP)
    - **j.** New Request Queue (RM)
    - **k.** Emergency Request Queue (All)
    - **l.** Request by Date
    - **m.** Release for Detailing Queue (COP)

n. Work Order Detailing Queue (OM)
o. Release for Scheduling Queue (OM)
p. Facility Work Order Queue (TS)
q. Section Work Order Queue (SF)
r. Closed Work Order Queue (RM)

3. Utilities
a. Prioritize Non-Recurring Requests
b. Security
a. People
b. Roles
c. Groups
c. System
a. General
b. Export PVA Chart Data
c. Facility
i. Acceptable NR Title List
d. Resources
i. Maintain Status Options
ii. Maintain Commodity Tables
iii. Maintain Labor Types

d. Change Password

4. Reports - (Menu Button or Toolbar)
a. Queues
- New Request Queue (SCT)
- New Request Queue (COP)
- New Request Queue (FP)
- New Request Queue (HP)
- New Request Queue (RM)
- Work Order Detailing Queue
- Completed Work Order Queue

b. Security
c. Plan Vs. Actual Report
d. Plan Vs Actual Charts

- Current Facility Chart
- Current Highway Chart
- Archived Charts

e. Expenditure Report

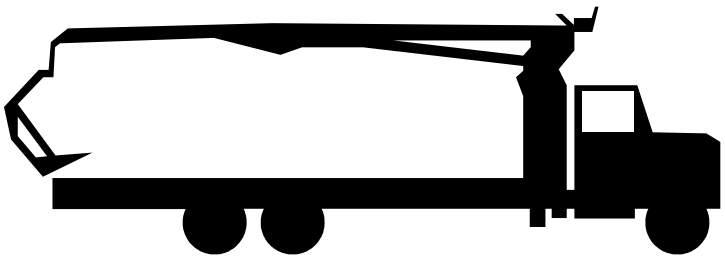
f. Resource Report

5. Exit

Note: Help is available from the Main Menu Bar only.

Section 4

Creating a Work Request



Work Orders are created as part of the PTC annual planning. Labor and material allocations for routine construction and maintenance are planned and logged for each Facility and Highway Section in each of the five districts. The Service Order Management System (SOMS) was created to help PTC employees manage these Work Orders, and provide a mechanism for Facility and Section supervisors to easily track and audit the actual labor and materials used each day on these projects.

Automobile accidents, severe weather conditions, equipment malfunctions, and other unforeseeable circumstances sometimes make it necessary for work crews to perform additional construction and maintenance tasks. This section of the SOMS user manual explains how to add these ***unplanned*** Work Orders to the Service Order Management System.

Work Request Service Flow

Submitting an Unplanned Work Request

Unplanned Work Orders begin as Work Requests. There are two acceptable methods of submitting a Work Request:

1. Request by Telephone
2. Service Order Request Form

A telephone request is only accepted if it is an Emergency (Immediate Attention) or Urgent (Next Day/Next Week Attention). All others require a Service Request Form to be completed and submitted to the Service Desk.

How Work Requests are responded to will depend on their degree of urgency and whether they are for Highway or Facility. Routine requests are routed to the Central

Office Planner's Queue for Initial Planning, Detail Planning, and Prioritization before becoming a Section or Facility Work Order. Emergency and Urgent requests are routed directly to the Section or Facility Work Order Queues for immediate response, and the Service Call Taker is required to contact the Section or Facility Supervisor directly to inform him that the request has been added.

Various personnel will modify, review and approve the Work Request throughout this process.

Receiving a Request

A PTC Service Call Taker is responsible for taking and recording all Emergency and Urgent Service Requests during normal business hours. A Network Control Operator is responsible for incoming requests during off-hours. Both are located at the Central Office facility. Calls are accepted at the Central Office Facility 24 hours a day.

Avoiding Mistakes

Checking the information that is entered into SOMS reduces the chance for error and wasted time and effort. Here are a few tips to help you enter information on a form.

For telephone requests:

a. Take notes. Write the information down before you enter it.

b. Repeat the information back to the caller to verify the information is correct. ***Don't forget to get the Milepost Prefix and Milepost Number.***

c. Enter the information from your notes. Check the information for accuracy.

For written requests:

a. Check the information before entering it.

b. Get any missing essential information.

c. Enter the information into the system. Check the information for accuracy.

New Request Queue (SCT)

One responsibility of the Service Call Taker is to contact the Section or Facility Supervisor directly when any Emergency requests for their respective locations are entered into SOMS. This is to insure that these Work Requests will receive proper attention. The Service Call Taker's New Request Queue is available to assist the SCT in this endeavor. This Queue contains all unplanned requests with a classification of Emergency that have not yet been checked assignment confirmed. The SCT should monitor this queue regularly, and if requests do not drop off he should consider a follow-up call to the respective supervisor and thereby prevent important work requests from being overlooked.

Section 4a - Highway

Entering a New Highway Work Request into SOMS

1. From the main SOMS screen, click New. This will display the Work Request Form. **(Figure 4.1)**

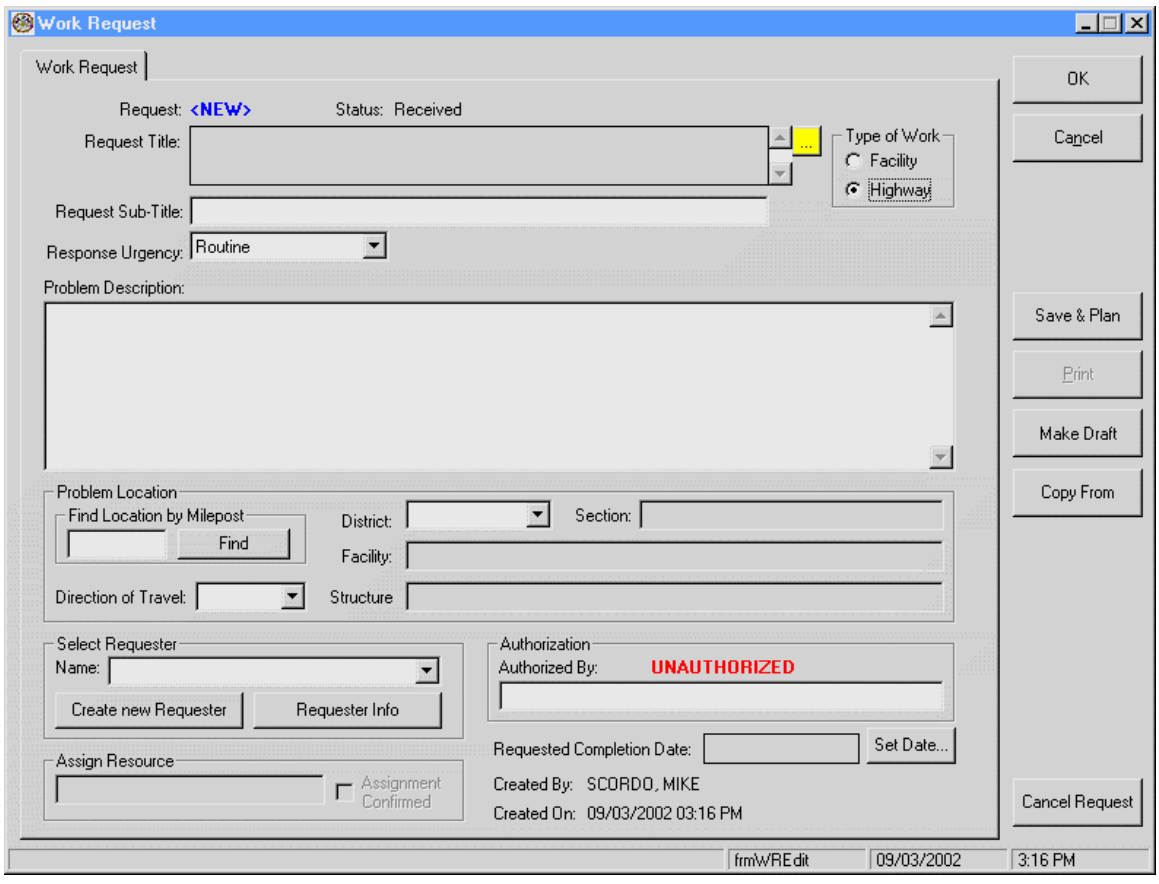
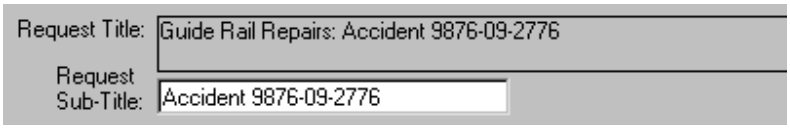


Figure 4.1 - New Work Request

2. Click **Highway** in the Type of Work frame. This same form is used for both Highway and Facility Work Requests, but the form

will process the request differently depending on which type of work is selected. For this reason, it is ***critical*** that the correct selection be made here before selecting a request title. If the type of work is changed, the request title will be deleted.

3. Click the ellipse (**'…'**) button to select a valid activity title for the work request. The Activity Title controls which preplanned resources are included during the creation of the work request. By selecting the most appropriate title, the most applicable resources will be preloaded on the request. If you are unable to find an appropriate activity title to fit the request, use the 'Miscellaneous' activity title at the top of the list. Do not use the Miscellaneous activity title if a more appropriate title is in the list, only use it as a last resort.
4. Specify a Sub-Title, which allows you to add information to the



end of the activity title. By adding information here the work request will be easily identified in the future and not confused with another request with the same activity title.

5. Use the **Response Urgency** drop-down list to select the type of response for the Work Request; Routine, Urgent, or Emergency.

    a. Routine requests will be routed through the planning system, may be created in Draft mode, and/or Saved & Planned.

    b. Urgent requests should be created for any work that must be accomplished within the current planning cycle, because there is not enough lead time to accomplish the normal planning before the work must be completed.

    c. Emergency requests should be created for work that requires an immediate response and will be routed directly to the appropriate Section Foreman's queue. The SCT must inform the responsible Foreman or Assistant Foreman directly that the request has been created.

6. Enter a Problem Description. This should be a layman's description of what is wrong, broken, damaged, or needed. It should not include a description of the corrective action to be taken.
7. Complete the Location fields. See the **Problem Location** section below for specific details on the use of this portion of the Work Request form.

8. Select the Requestor from the Requestor drop down box. Pressing a letter will jump to the first last name in the list beginning with that letter. If the Requestor is not in the list, use the Create New Requestor button to enter them into the system. Details on the use of the **Requestor** button are provided below, immediately following the **Problem Location** section.
9. Enter the **Requested Completion Date** if one was supplied.
10. For Routine and Urgent work requests, enter the name of the person authorizing the request in the Authorized By field.
11. For Emergency work requests, choose the appropriate supervisor to contact in the Assign Resource field and check the Assignment Confirmed box if that person has been notified of the emergency.
12. At this point the basic request is filled out and you have the option of submitting the work request or going into the initial planning process. The available options are shown on the enabled buttons on the right side of the screen and each of those is detailed below.
13. Clicking **OK** will initiate the validation process to check key fields for required information. If any errors are detected, a message box will indicate what information needs corrected. When the information passes the validation test the work request is created and the assigned number is displayed. The request is then routed to the appropriate work queue.

New Emergency Requests

Emergencies must be responded to immediately.

When created, Emergency requests are routed directly to the Section Foreman's Work Order Queue as well as to the Emergency Request Queue. Routing directly to the Foreman's Queue provides timely notification.

The Service Call Taker should follow up all Emergency requests entered into SOMS with a telephone call to the responsible Section Foreman. This will ensure the request is acted upon expeditiously. The **New Request Queue (SCT)** will display all Emergency requests that have not yet been marked "assignment confirmed", allowing the Call Taker (or other interested parties) to verify that action is being taken on these requests.

Problem Locations

The Problem Location section allows the user to enter specific details about the location of the area in need of service. Detailed information assists in locating the problem.

1. If the **Mile Post** closest to the location of the problem is known, enter this first. (Do not forget to enter the Mile Post Prefix if applicable.) This information should have been given to you by the requester, or listed on the Work Request Form. Once the Mile Post has been entered, the **Find Location** button can be used to automatically complete the **District** and **Section** fields for Highway requests.
2. If the **Mile Post** is not known, select the District and Section from the **District** and **Section** drop-down boxes. This will ensure the request is sent to the proper destination for work. (Note that the **Section** drop-down list is not populated until a selection is made in the **District** field)
3. Click the **Direction of Travel** drop-down arrow to identify which lane the problem applies to from the list of directions.
4. Note that the **Facility** and **Structure** fields are disabled, since these only apply to **Facility** Work Requests.

Requester

All Work Requests must have a Requester. The Requester is added to the Work Request by clicking the **Requester** field and selecting the individual from the list.

If the desired person is not in the list they can be entered by selecting the **Create new Requester** button. This will display the Create Requester form. **(Figure 4.2)**

To prevent entering a person twice in the list, start by entering their last name in the Last Name field and click the Search button.

Any matching records will be displayed in the Search Results list. Select the desired record and click OK.

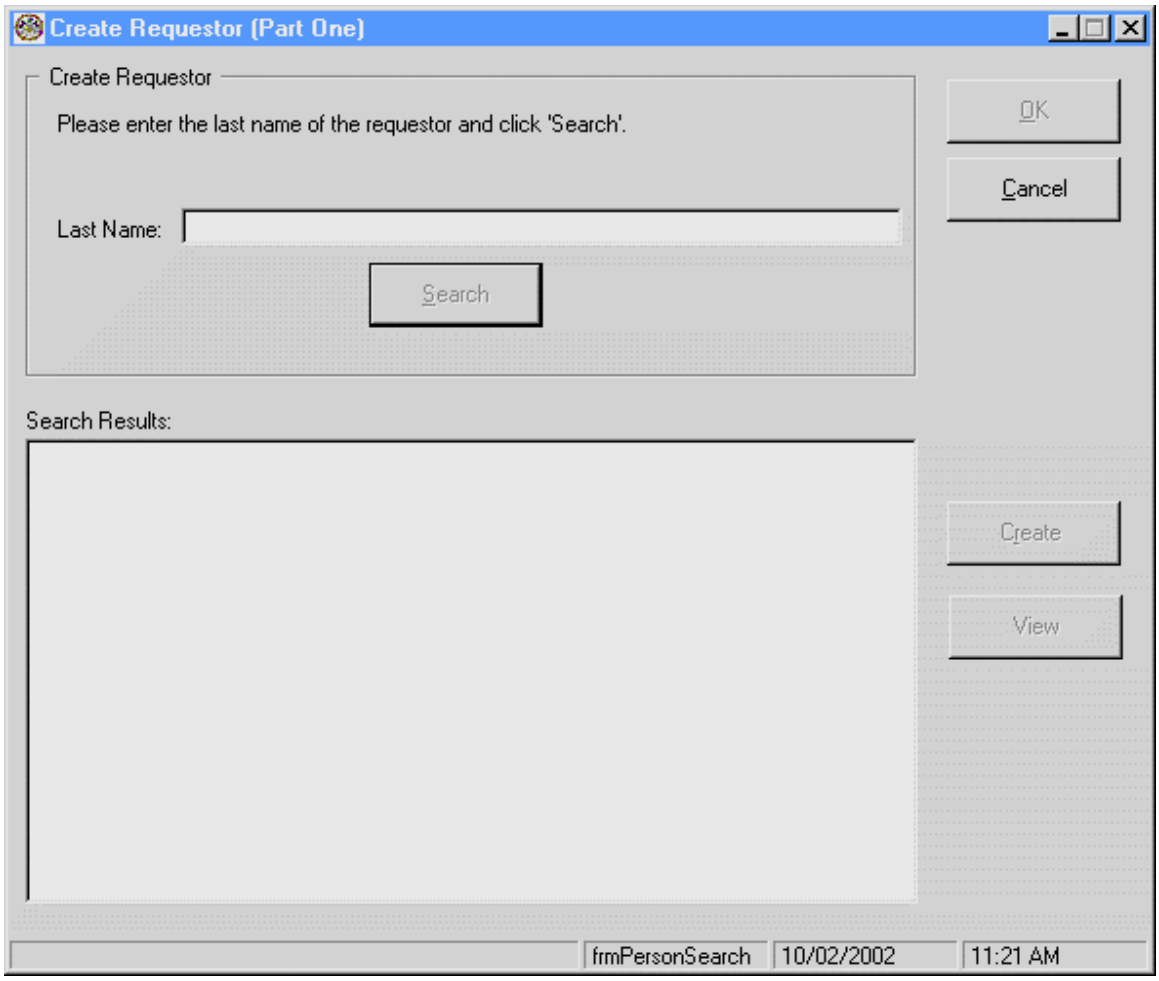


Figure 4.2 - Create Requestor Form

If no match is found, the Create button is enabled. Click Create and proceed to the Create Requestor form (**Figure 4.3**) to add the person to the list.

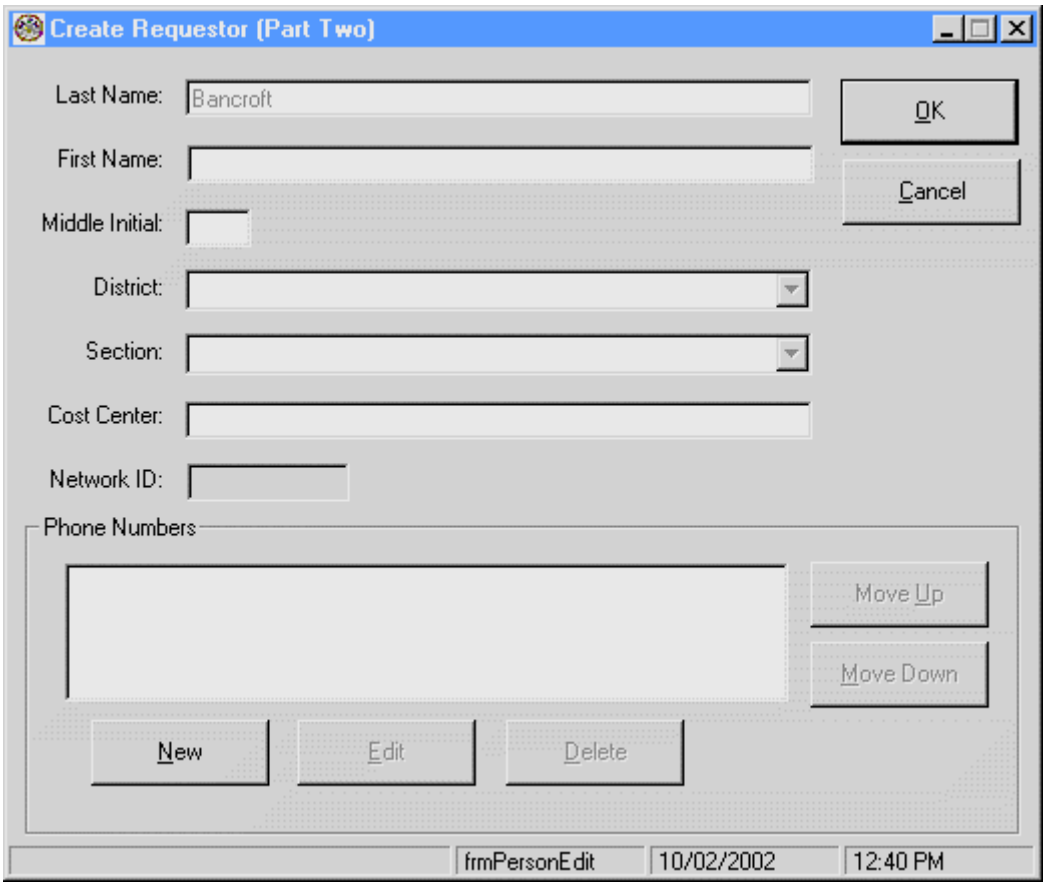


Figure 4.3 - Create Requestor Form

The Last Name is preloaded using the name you searched for on the previous screen. Enter the remaining known information for the new requestor in the other active fields and click OK. This new requestor will be assigned to the work request.

Complete the Work Request

Click OK. A Work Order Created message appears. **(Figure 4.4)**

Figure 4.4 - Work Request Created Message

This will route the request to the appropriate queues. Once the request is created, a Work Request ID Number, Created By, and Created On (Date Created) fields are automatically completed by the system.

Save & Plan

By selecting Save & Plan the work request is created and you are taken to the Initial Planning screen (**Figure 4.5**) which is described in detail in Section 5.

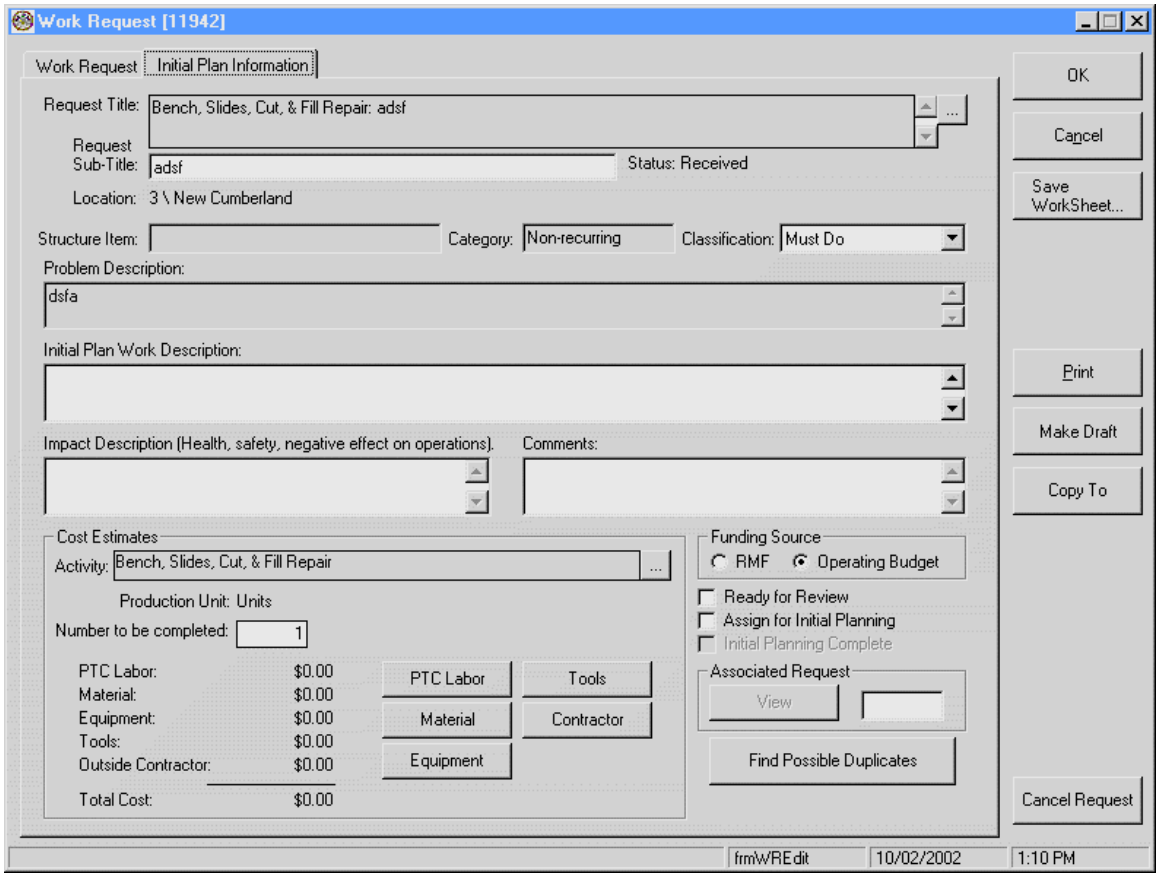


Figure 4.5 - Work Request Initial Planning Panel

Draft Mode

By selecting Draft mode with the Make Draft button, the work request will be routed to the Draft Queue instead of the Central Office Planner's New Request Queue when saved. The Draft mode is intended to provide a method for members of the same District/Section to work together on a work order; creating, reviewing, planning, and revising, prior to submitting it to the COP for Initial Plan approval.

Note: The Section Foreman and Section Clerk roles can create Routine and Urgent work requests in Draft Mode only. They can create Emergeny work requests in normal mode however

Copy From.

The Copy From option is available during the Create New Request process prior to selecting Save & Plan or pressing OK. Copy From provides a way to base a new request upon an existing work order that may have the desired planning information assigned or a lengthy work description for similar work already entered. Copy From can also be used to copy from a Draft request being maintained as a master copy or template. A few restrictions exist. A copy can only be made from a work request of the same Type of Work. Copies can not be made from Emergency, Routine Recurring, or Cancelled work orders. When you select Copy From a message box appears to enter the existing work order number into (**Figure 4.6**).

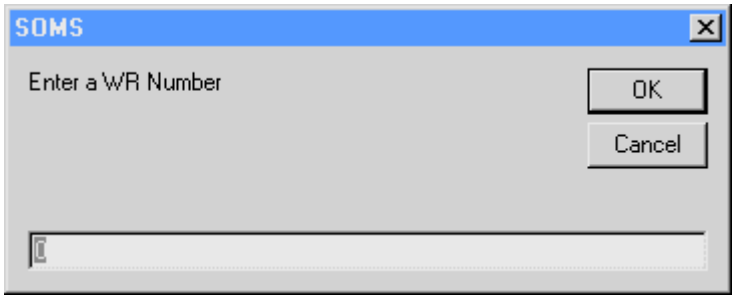


Figure 4.6 - Copy From Prompt

Copy To

The Copy To process is available once the work request has been created. This function allows you to reference one work request and create copies of it for multiple locations in one process. Selecting Copy To will open the Copy Control Screen (**Figure 4.7**).

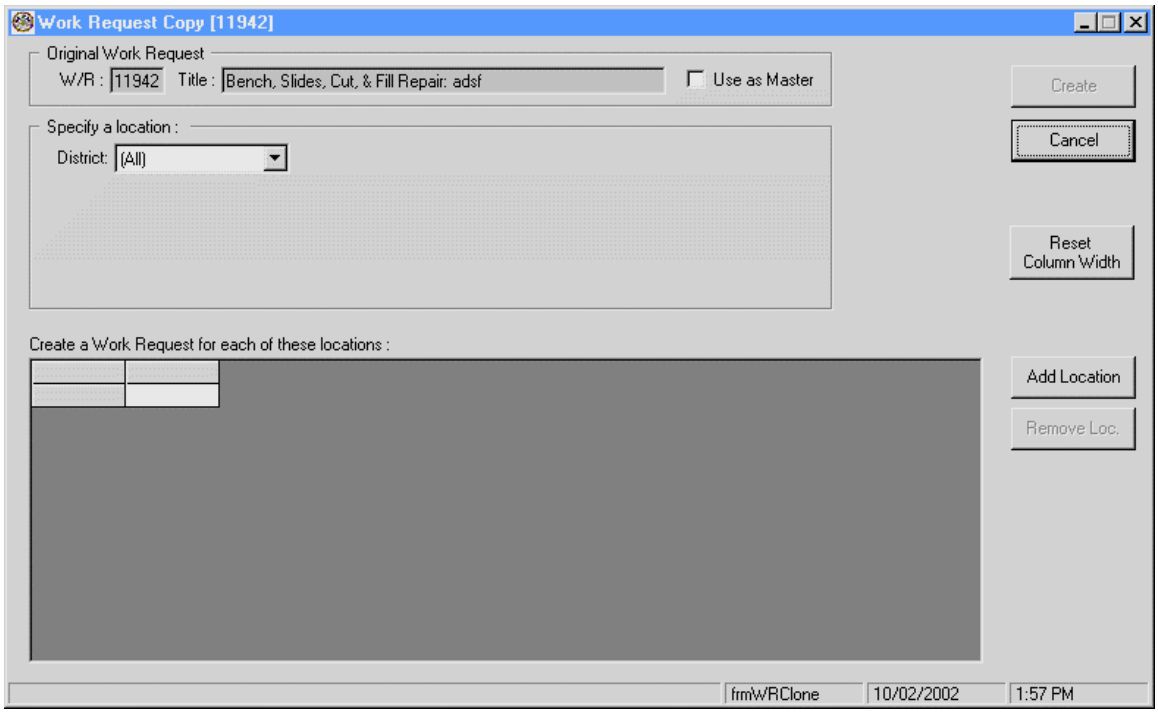


Figure 4.7 - Work Request Copy Control Screen

Start by selecting the location of the first copy with the District and Section controls (Figure 4.8). Then select Add Location to create a record in the lower list box. Continue choosing locations and selecting Add Location until all desired locations have been listed in the lower list box. An unwanted location can be removed by selecting it and then clicking on Remove Loc. At this point no work requests have been created. By checking the Use as Master box the Requestor, Authorized By and Requested Completion Dates will be copied to the new requests also.

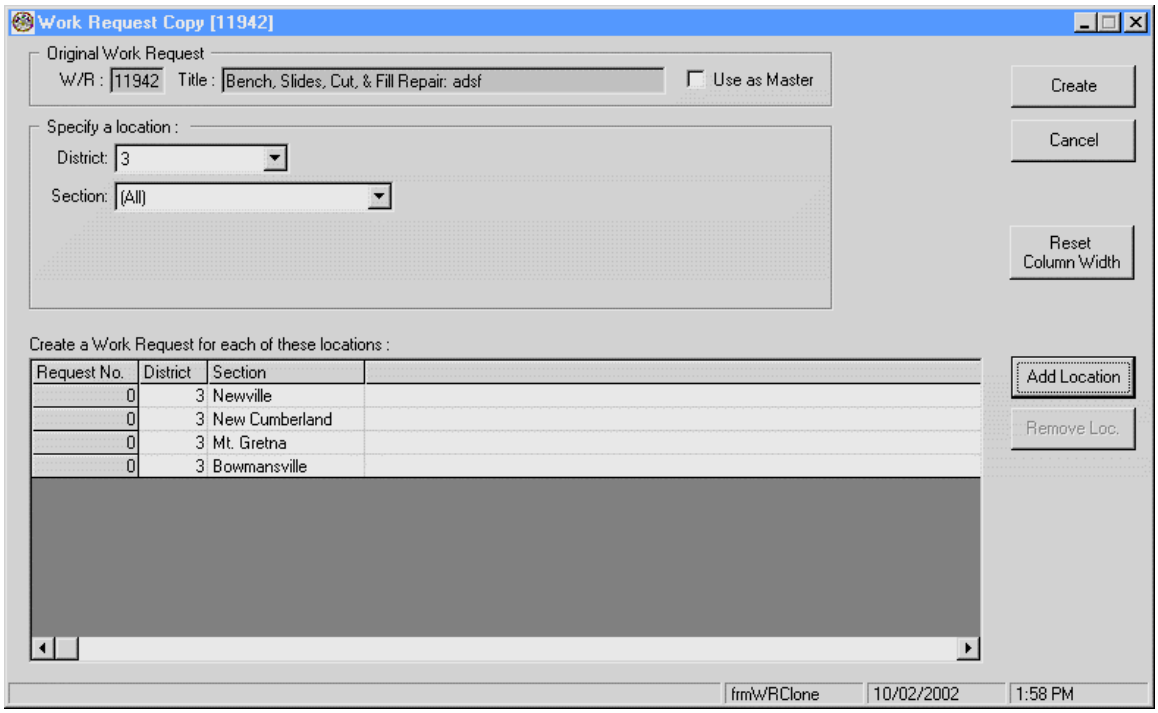


Figure 4.8 Copy To Locations

Create Copies

Select Create to generate work requests for the listed locations. A progress report is displayed in the upper list box (Figure 4.9). Once the work requests are created the Request No. column is filled in.

Note: All copies are created in Draft mode and must be edited to be taken off Draft mode at a minimum to submit the requests to the COP.

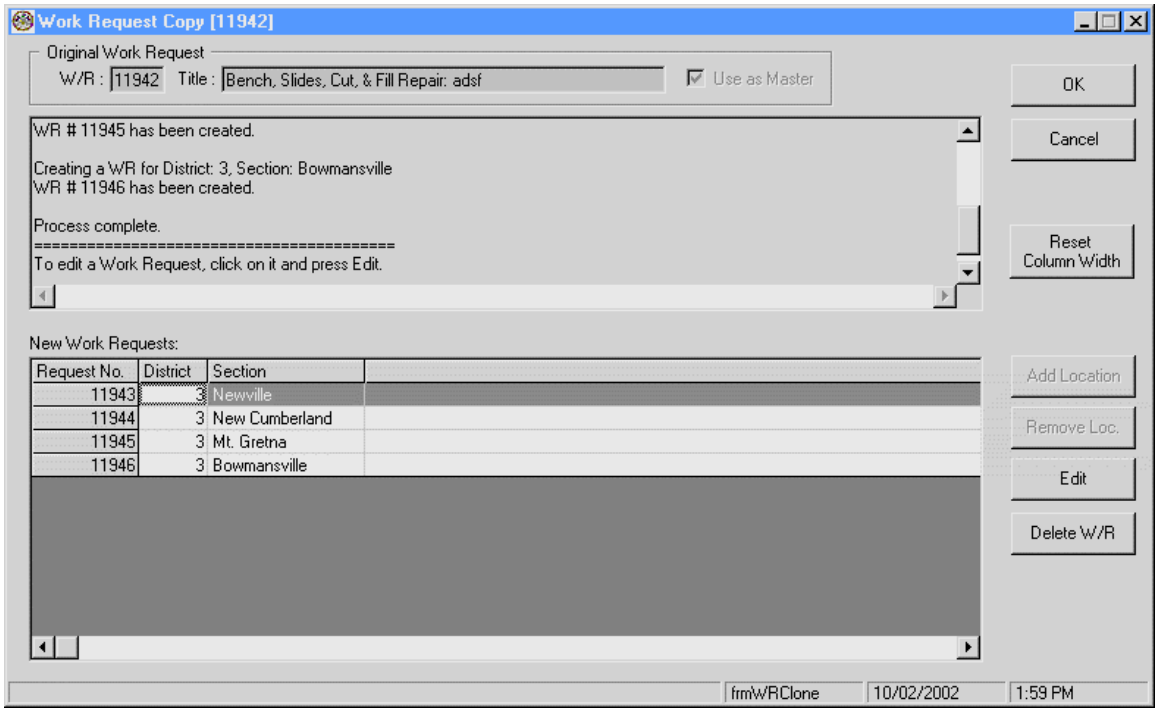


Figure 4.9 Copy To Create Status Messages

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Section 4b - Facility

Entering a New Facility Work Request into SOMS

1. From the main SOMS screen, click New. This will display the Work Request Form. **(Figure 4.10)**

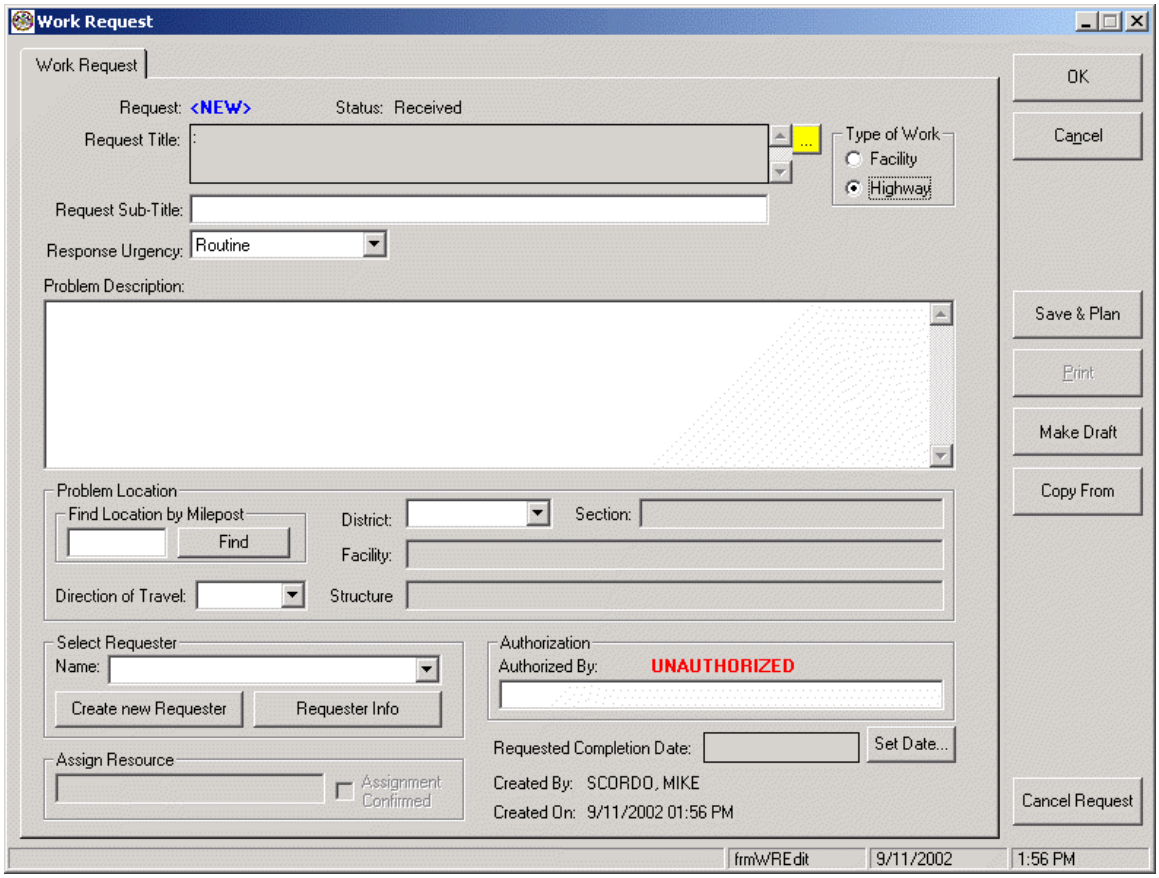
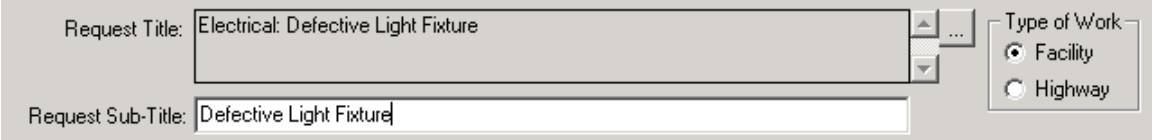


Figure 4.10 - New Work Request

2. Click **Facility** in the Type of Work frame. This same form is used for both Highway and Facility Work Requests, but the form will process the request differently depending on which Type of Work is selected. For this reason, it is ***critical*** that the correct selection

be made here before selecting a request title. If the type of work is changed, the request title will be deleted.

3. Click the ellipse ('**…**') button to select a valid activity title for the work request. The Activity Title controls which preplanned resources are included during the creation of the work request. By selecting the most appropriate title, the most applicable resources will be preloaded on the request. If you are unable to find an appropriate activity title to fit the request, use the 'Miscellaneous' activity title at the top of the list. Do not use the Miscellaneous activity title if a more appropriate title is in the list, only use it as a last resort.
4. Specify a Sub-Title, which allows you to add information to the end of the activity title. By adding information here the work request will be easily identified in the future and not confused with another request with the same activity title.



5. Use the **Response Urgency** drop-down list to select the type of response for the Work Request; Routine, Urgent, or Emergency.

   a. Routine requests will be routed through the planning system, may be created in Draft mode, and/or Saved & Planned.

   b. Urgent requests should be created for any work that must be accomplished within the current planning cycle, because there is not enough lead time to accomplish the normal planning before the work must be completed.

   c. Emergency requests should be created for work that requires an immediate response and will be routed directly to the appropriate Section Foreman's queue. The SCT must inform the responsible Foreman or Assistant Foreman directly that the request has been created.
6. Enter a Problem Description. This should be a layman's description of what is wrong, broken, damaged, or needed. It should not include a description of the corrective action to be taken.
7. Complete the Location fields. See the **Problem Location** section below for specific details on the use of this portion of the Work Request form.

8. Select the Requestor from the Requestor drop down box. Pressing a letter will jump to the first last name in the list beginning with that letter. If the Requestor is not in the list, use the Create New Requestor button to enter them into the system. Details on the use of the **Requestor** button are provided below, immediately following the **Problem Location** section.
9. Enter the **Requested Completion Date** if one was supplied.
10. For Routine and Urgent work requests, enter the name of the person authorizing the request in the Authorized By field.
11. For Emergency work requests, choose the appropriate supervisor to contact in the Assign Resource field and check the Assignment Confirmed box if that person has been notified of the emergency.
12. At this point the basic request is filled out and you have the option of submitting the work request or going into the initial planning process. The available options are shown on the enabled buttons on the right side of the screen and each of those is detailed below.
13. Clicking **OK** will initiate the validation process to check key fields for required information. If any errors are detected, a message box will indicate what information needs corrected. When the information passes the validation test the work request is created and the assigned number is displayed. The request is then routed to the appropriate work queue.

New Emergency Requests

Emergencies must be responded to immediately.

When created, Emergency requests are routed directly to the Trade Supervisor's Work Order Queue as well as to the Emergency Request Queue. Routing directly to the Supervisor's Queue provides timely notification.

The Service Call Taker should follow up all Emergency requests entered into SOMS with a telephone call to the responsible Trace Supervisor. This will ensure the request is acted upon expeditiously. The **New Request Queue (SCT)** will display all Emergency requests that have not yet been marked "assignment confirmed", allowing the Call Taker (or other interested parties) to verify that action is being taken on these requests.

Problem Locations

Problem Location information requires specific details as to the location of the area in need of service. Detailed information assists in locating the problem.

1. Select the District from the **District** drop-down box. This will ensure the request is sent to the proper destination for work.

2. The **Facility** drop-down list is not populated until a District is selected from the **District** drop-down list. Once a District is selected, choose the correct Facility from the **Facility** drop-down list.
3. The **Structure** drop-down list is populated once a Facility is selected. Choose the appropriate Structure to complete the Problem Locations section.
4. Note that the other fields available in the Problem Location section will be disabled since these are only relevant to Highway Work Requests.

Requester

All Work Requests must have a Requester. The Requester is added to the Work Request by clicking the **Requester** field and selecting the individual from the list.

If the desired person is not in the list they can be entered by selecting the **Create new Requester** button. This will display the Create Requester form. **(Figure 4.11)**

To prevent entering a person twice in the list, start by entering their last name in the Last Name field and click the Search button.

Any matching records will be displayed in the Search Results list. Select the desired record and click OK.

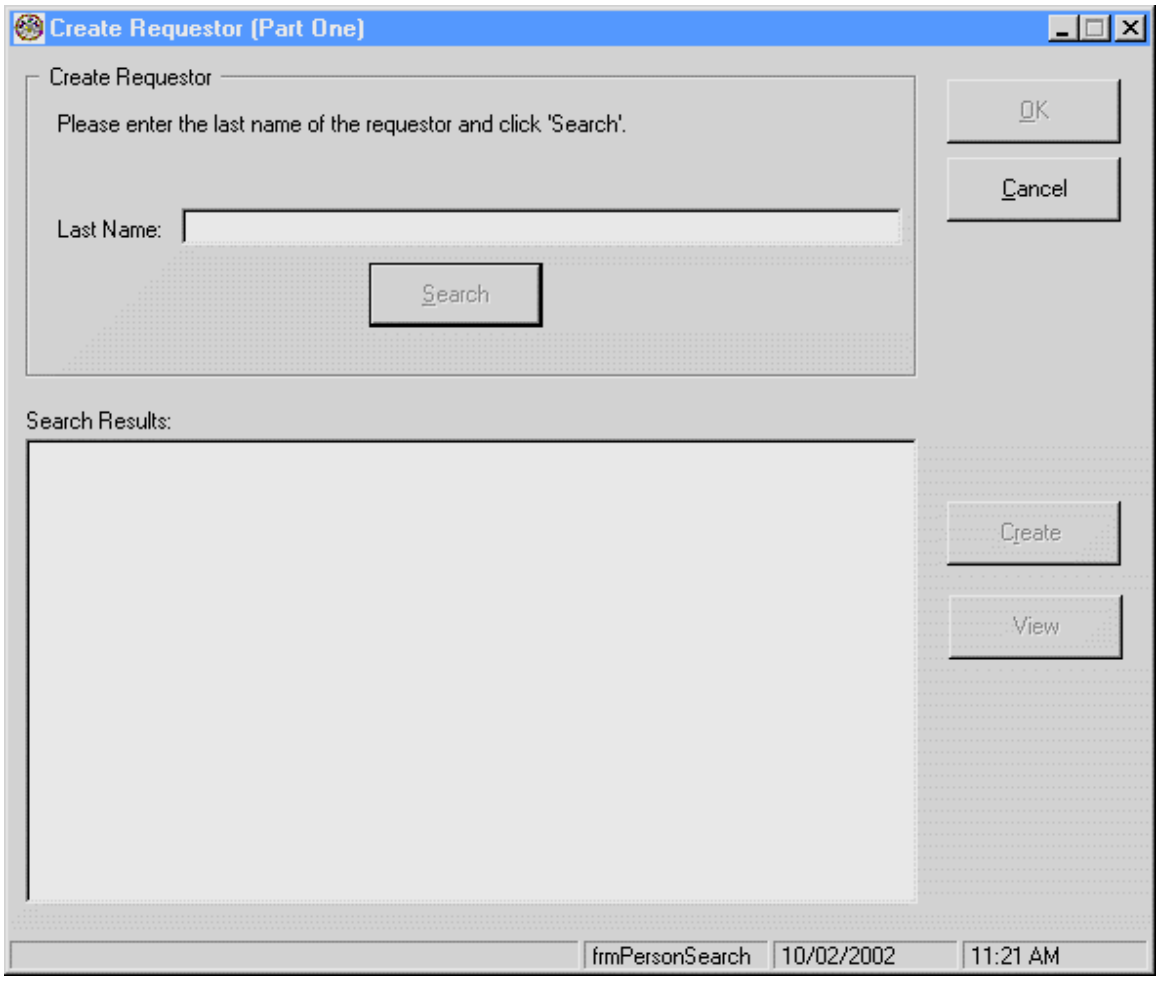


Figure 4.11 - Create Requestor Form

If no match is found, the Create button is enabled. Click Create and proceed to the Create Requestor form (**Figure 4.12**) to add the person to the list.

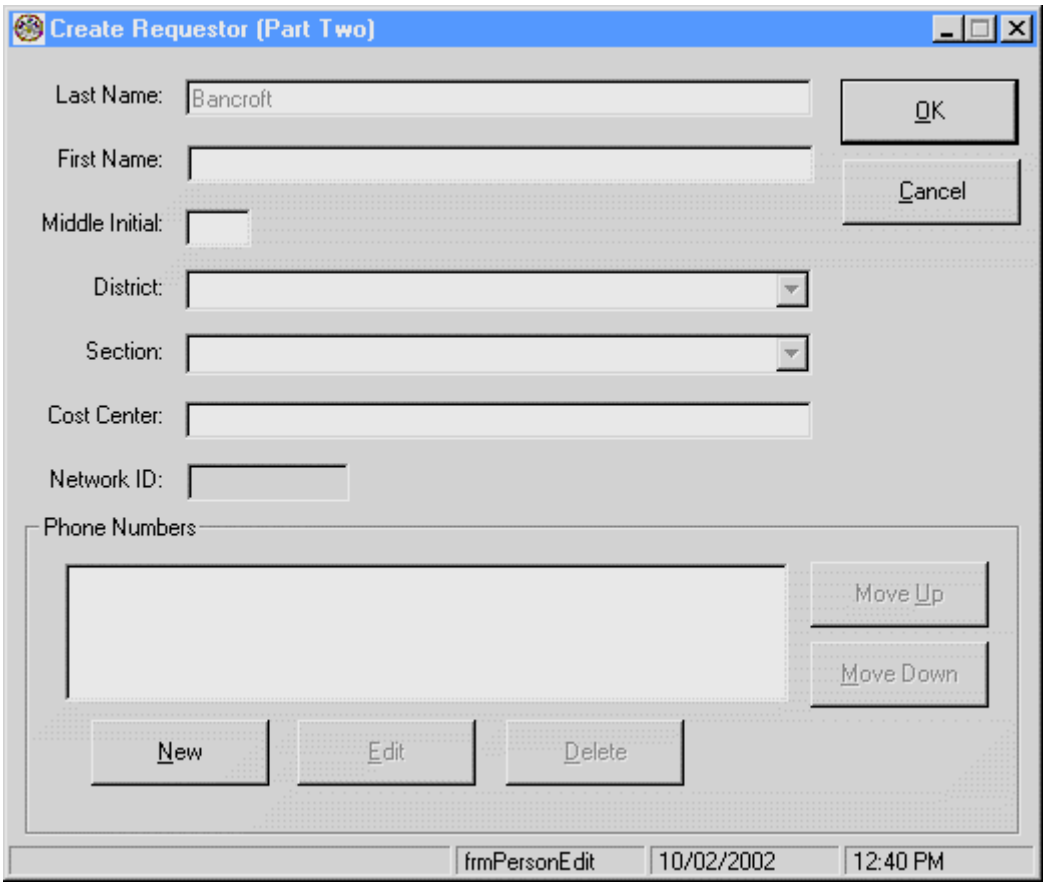


Figure 4.12 - Create Requestor Form

The Last Name is preloaded using the name you searched for on the previous screen. Enter the remaining known information for the new requestor in the other active fields and click OK. This new requestor will be assigned to the work request.

Complete the Work Request

Click OK. A Work Order Created message appears. **(Figure 4.13)**

Figure 4.13 - Work Request Created Message

This will route the request to the appropriate queues. Once the request is created, the Work Request ID Number, Created By, and Created On (Date Created) fields are automatically completed by the system.

Save & Plan

By selecting Save & Plan the work request is created and you are taken to the Initial Planning screen (**Figure 4.14**) which is described in detail in Section 5.

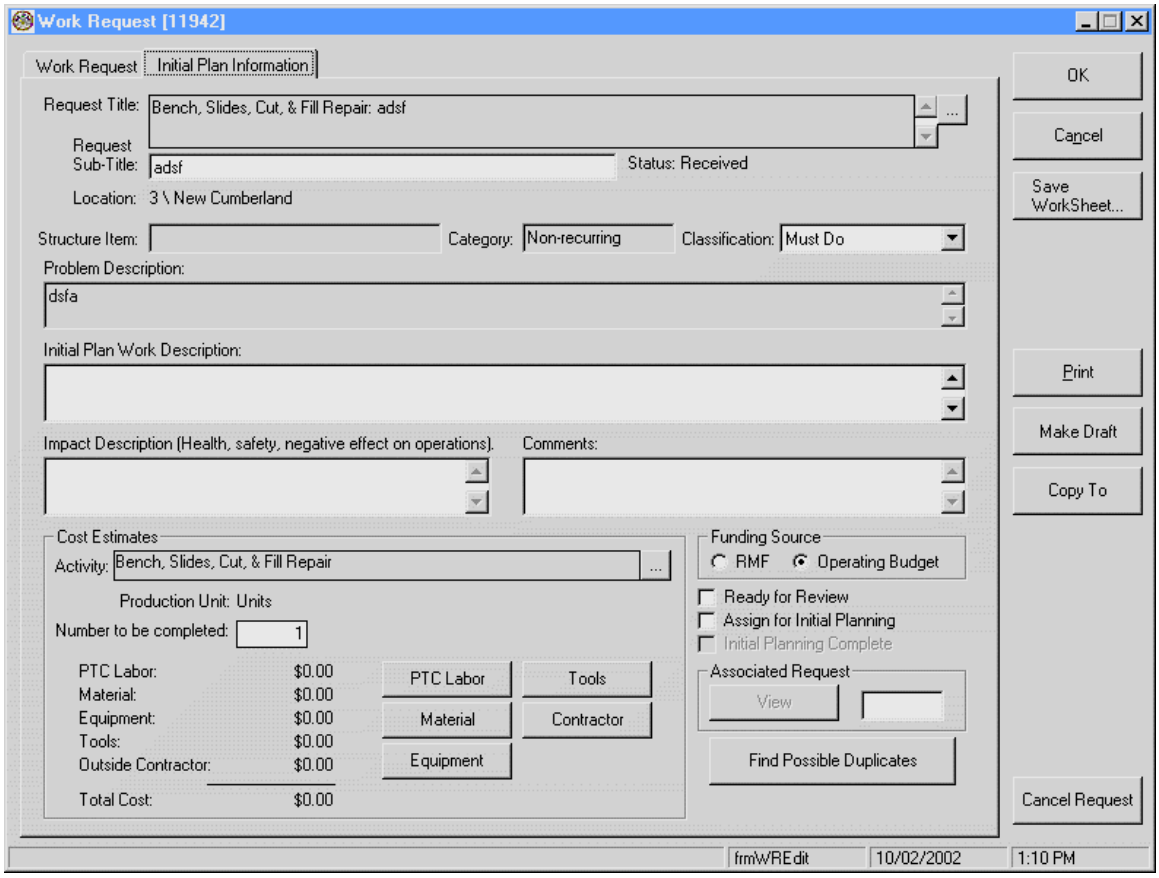


Figure 4.14 - Work Request Initial Planning Panel

Draft Mode

By selecting Draft mode with the Make Draft button, the work request will be routed to the Draft Queue instead of the Central Office Planner's New Request Queue when saved. The Draft mode is intended to provide a method for members of the same District to work together on a work order; creating, reviewing, planning, and revising, prior to submitting it to the COP for Initial Plan approval.

Copy From.

The Copy From option is available during the Create New Request process prior to selecting Save & Plan or pressing OK. Copy From provides a way to base a new request upon an existing work order that may have the desired planning information assigned or a lengthy work description for similar work already entered. Copy From can also be used to copy from a Draft request being maintained as a master copy or template. A few restrictions exist. A copy can only be made from a work request of the same Type of Work. Copies can not be made from Emergency, Routine Recurring, or Cancelled work orders. When you select Copy From a message box appears to enter the existing work order number into (**Figure 4.15**).

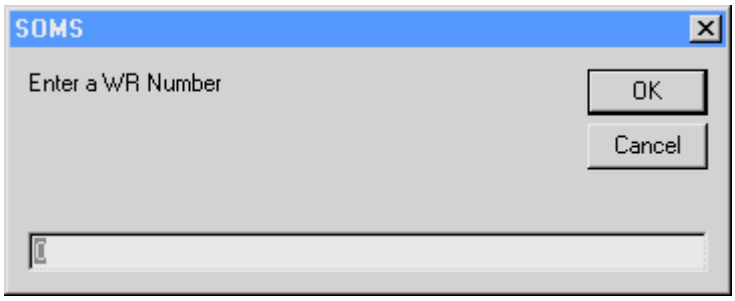


Figure 4.15 - Copy From Prompt

Copy To

The Copy To process is available once the work request has been created. This function allows you to reference one work request and create copies of it for multiple locations in one process. Selecting Copy To will open the Copy Control Screen (**Figure 4.16**).

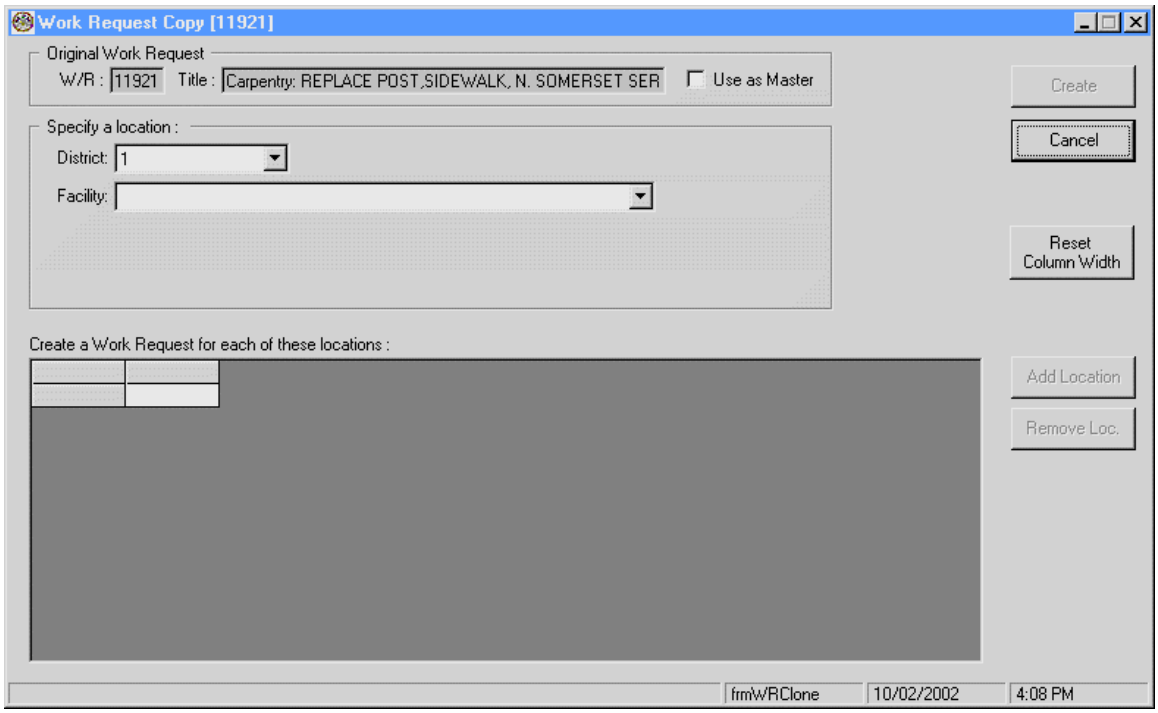


Figure 4.16 - Work Request Copy Control Screen

Start by selecting the location of the first copy with the District and Section controls (**Figure 4.17**). Then select Add Location to create a record in the lower list box. Continue choosing locations and selecting Add Location until all desired locations have been listed in the lower list box. Any unwanted location can be removed by selecting it and then clicking on Remove Loc. At this point no work requests have been created. By checking the Use as Master box the Requestor, Authorized By and Requested Completion Dates will be copied to the new requests also.

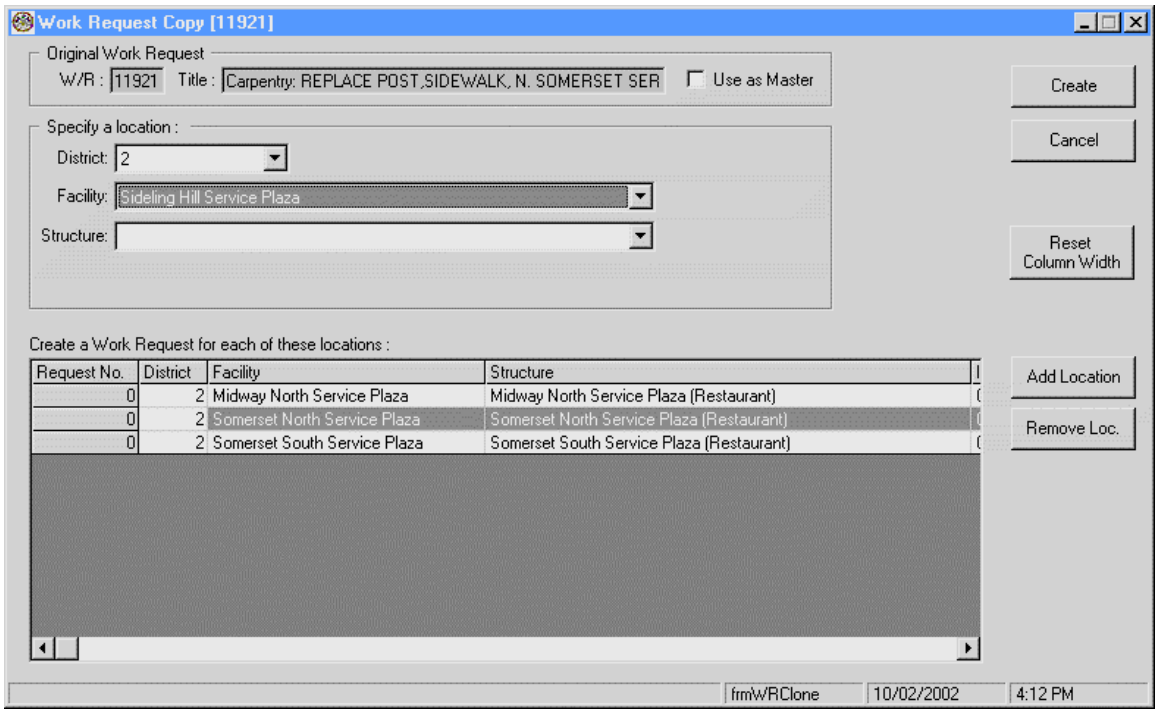


Figure 4.17 - Copy To Locations

Create Copies

Select Create to generate work requests for the listed locations. A progress report is displayed in the upper list box (**Figure 4.18**). Once the work requests are created the Request No. column is filled in.

Note: All copies are created in Draft mode and must be edited to be taken off Draft mode, at a minimum, to submit the requests to the COP.

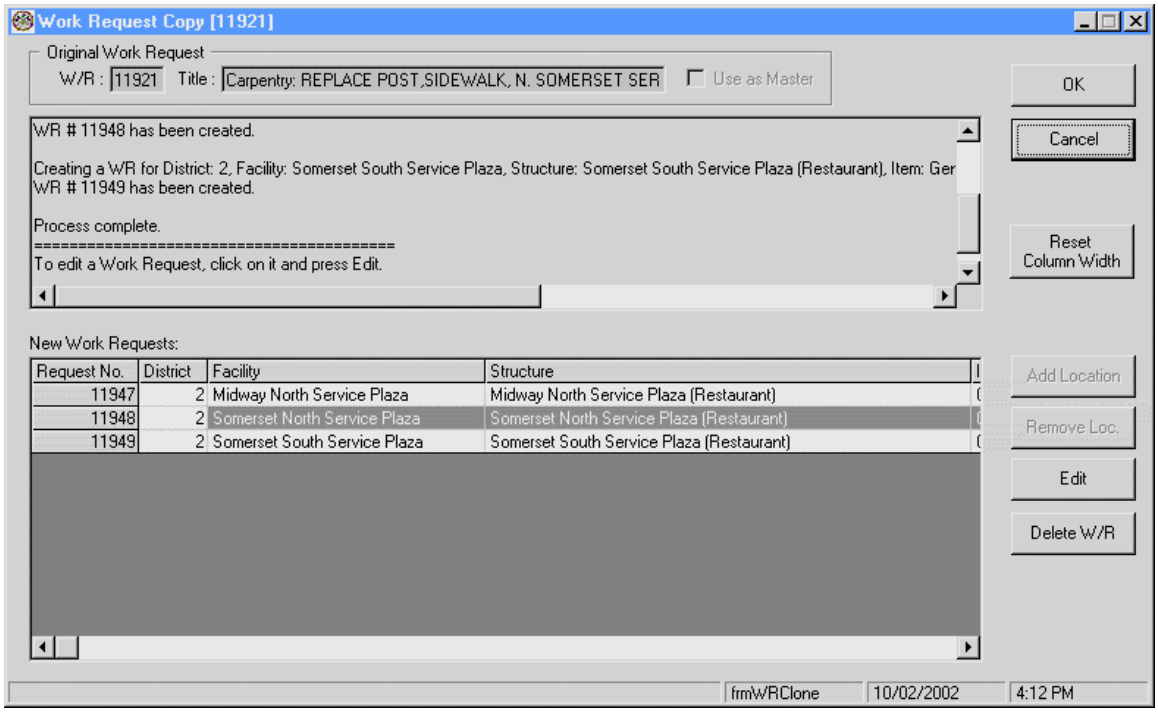

Work Request Copy [11921]
Original Work Request
W/R : 11921
Title : Carpentry: REPLACE POST,SIDEWALK, N. SOMERSET SER
Use as Master
OK
Cancel
WR # 11948 has been created.
Creating a WR for District: 2, Facility: Somerset South Service Plaza, Structure: Somerset South Service Plaza (Restaurant), Item: Ger
WR # 11949 has been created.
Process complete.
==========
To edit a Work Request, click on it and press Edit.
Reset Column Width
New Work Requests:
Request No. | District | Facility | Structure
11947 | 2 | Midway North Service Plaza | Midway North Service Plaza (Restaurant)
11948 | 2 | Somerset North Service Plaza | Somerset North Service Plaza (Restaurant)
11949 | 2 | Somerset South Service Plaza | Somerset South Service Plaza (Restaurant)
Add Location
Remove Loc.
Edit
Delete W/R
frmWRClone
10/02/2002
4:12 PM

Figure 4.18 - Copy To Create Status Messages

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Section 5

Initial Planning

New Request Queues

Once a Work Request is created, it is routed to the Central Office Planner's New Request Queue. Routine and Urgent Requests do not become Work Orders until Initial Planning is complete and the work request has been released for Detail Planning. It is the responsibility of the Central Office Planner to approve the Initial Planning on all new Non-recurring Work Requests. He has the option to delegate or **Assign** this responsibility to the Facility or Highway Planner. Clicking the Queues button on the SOMS main form will display a list of Queues available to any particular user. **Figure 5.3** below shows all the available Queues:

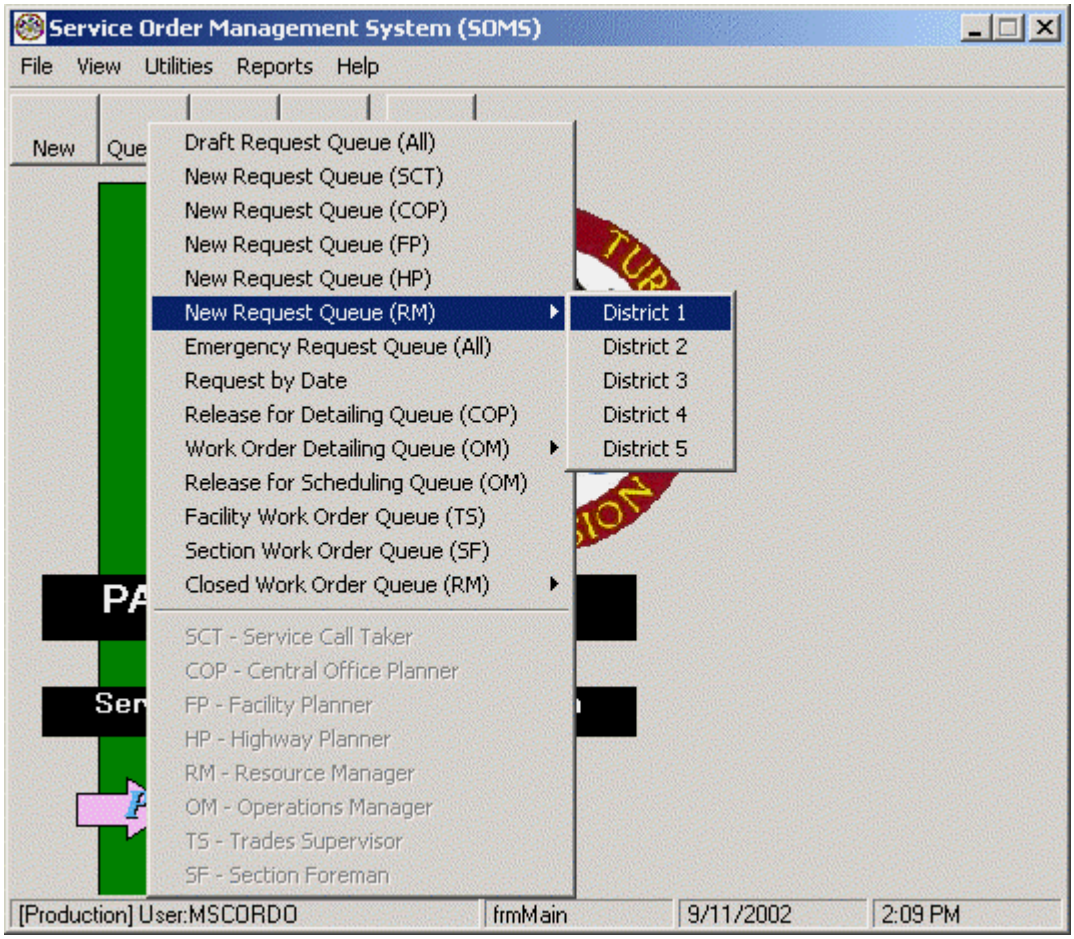

Figure 5.3 - Queue Options

Each user will only see the Queues available to them based upon their assigned role(s).

Clicking on the New Request Queue will open a form displaying the New Requests. **(Figure 5.4)** The New Requests that are viewed depend on the user's role:

All Users have access to the Draft queue and will be able to see work requests for their Organization.

Service Call Takers will view Requests that have a status of Received. They also can view Requests which are classified as Emergency and have an Assigned status.

Central Office Planners can view Requests that have a status of Received, Assigned, or Acknowledged.

Facility and Highway Planners will view Requests that have a status of Received, Acknowledged, or Assigned for Initial Planning.

Resource Managers will be able to view Request in their district with a status of Detail Planning Complete.

All Users have access to the Emergency queue and will be able to see work requests for the entire Turnpike. The Emergency queue provides Read Only access to the work requests for all users.

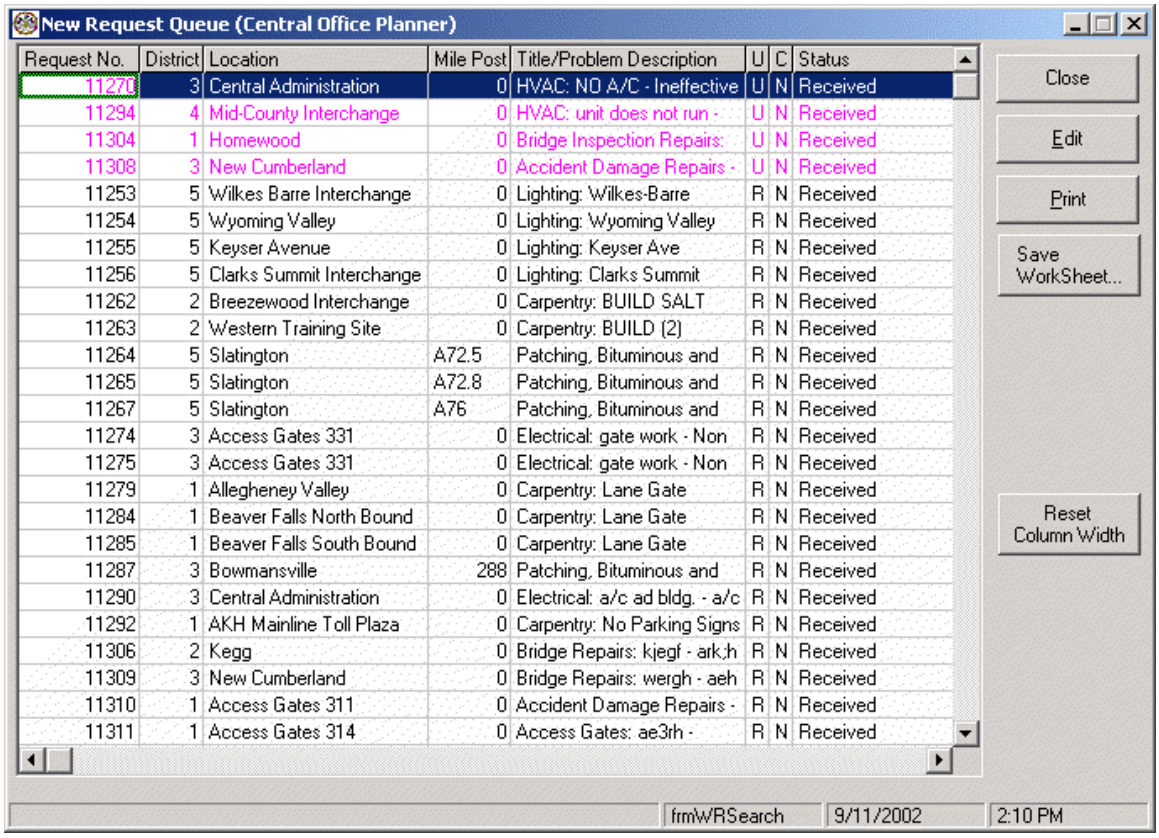
New Request Queue (Central Office Planner)
Request No. | District | Location | Mile Post | Title/Problem Description | U | C | Status
11270 | 3 | Central Administration | 0 | HVAC: NO A/C - Ineffective | U | N | Received
11294 | 4 | Mid-County Interchange | 0 | HVAC: unit does not run - | U | N | Received
11304 | 1 | Homewood | 0 | Bridge Inspection Repairs: | U | N | Received
11308 | 3 | New Cumberland | 0 | Accident Damage Repairs - | U | N | Received
11253 | 5 | Wilkes Barre Interchange | 0 | Lighting: Wilkes-Barre | R | N | Received
11254 | 5 | Wyoming Valley | 0 | Lighting: Wyoming Valley | R | N | Received
11255 | 5 | Keyser Avenue | 0 | Lighting: Keyser Ave | R | N | Received
11256 | 5 | Clarks Summit Interchange | 0 | Lighting: Clarks Summit | R | N | Received
11262 | 2 | Breezewood Interchange | 0 | Carpentry: BUILD SALT | R | N | Received
11263 | 2 | Western Training Site | 0 | Carpentry: BUILD (2) | R | N | Received
11264 | 5 | Slatington | A72.5 | Patching, Bituminous and | R | N | Received
11265 | 5 | Slatington | A72.8 | Patching, Bituminous and | R | N | Received
11267 | 5 | Slatington | A76 | Patching, Bituminous and | R | N | Received
11274 | 3 | Access Gates 331 | 0 | Electrical: gate work - Non | R | N | Received
11275 | 3 | Access Gates 331 | 0 | Electrical: gate work - Non | R | N | Received
11279 | 1 | Allegheney Valley | 0 | Carpentry: Lane Gate | R | N | Received
11284 | 1 | Beaver Falls North Bound | 0 | Carpentry: Lane Gate | R | N | Received
11285 | 1 | Beaver Falls South Bound | 0 | Carpentry: Lane Gate | R | N | Received
11287 | 3 | Bowmansville | 288 | Patching, Bituminous and | R | N | Received
11290 | 3 | Central Administration | 0 | Electrical: a/c ad bldg. - a/c | R | N | Received
11292 | 1 | AKH Mainline Toll Plaza | 0 | Carpentry: No Parking Signs | R | N | Received
11306 | 2 | Kegg | 0 | Bridge Repairs: kjegf - ark;h | R | N | Received
11309 | 3 | New Cumberland | 0 | Bridge Repairs: wergh - aeh | R | N | Received
11310 | 1 | Access Gates 311 | 0 | Accident Damage Repairs - | R | N | Received
11311 | 1 | Access Gates 314 | 0 | Access Gates: ae3rh - | R | N | Received
Close
Edit
Print
Save WorkSheet...
Reset Column Width
frmWRSearch
9/11/2002
2:10 PM

Figure 5.4 - View New Work Request Queue

1. Selecting a Request from the New Request Queue and clicking the **Edit** button will open the Initial Planning screen. (**Figure 5.5**) Alternately, the user may double-click on a request to open the Initial Planning screen.
2. Clicking the **Print** button will open the Print Control Panel (described in Section 3) with all applicable options for previewing or printing various reports.
3. The Reset Column Width button will restore the column widths to their default widths.
4. The Save Worksheet button will generate an Excel Spreadsheet containing all of the information currently entered for the work request.

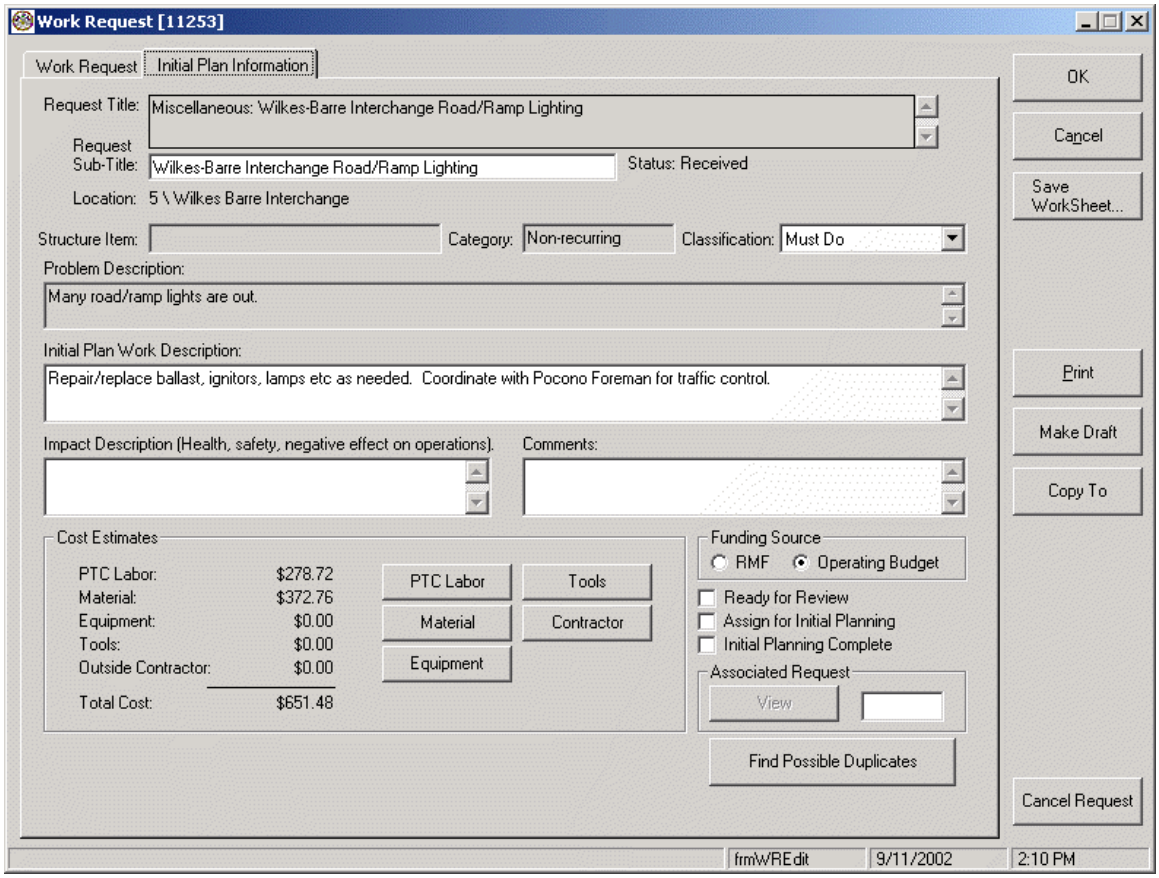

Figure 5.5 - Work Request Form: Initial Plan Information Tab

Initial Planning Information Screen

New Routine Requests

The main differences between Routine and Urgent requests and Emergency requests is that Emergency requests do not require Initial Planning, Detail Planning and release scheduling.

Assign for Initial Planning

The Central Office Planner may assign a Work Request for Initial Planning by marking the check box "Assign for Initial Planning" and saving this information (click "OK"). Depending on the Type of Work, the Work Request will now appear in the Facility or Highway Planner's Queue.

Certain fields may not be relevant and will be locked dependent on whether this is a Facility or Highway request. Viewers unauthorized to make changes on this form will find ALL fields locked. (These assignments can be made by the Administrator in the Security screen.)

Find Duplicates

The first *recommended* step in Initial Planning is to check for possible duplicates. It may be possible that the request is a duplicate of an existing request, or an earlier request for the same problem was entered and not completed due to unforeseen circumstances. To check for a duplicate request:

1. Click **Find Possible Duplicates**. This will display all requests at the same location as the work request being currently viewed. **(Figure 5.6)**

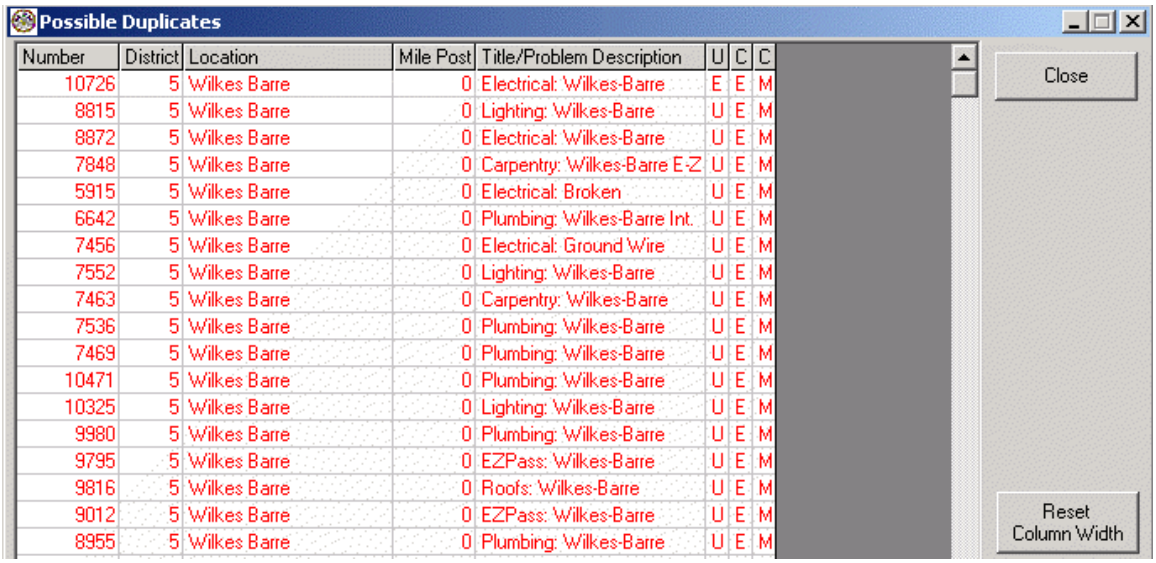
Possible Duplicates
Number
District
Location
Mile Post
Title/Problem Description
U
C
C
10726 5 Wilkes Barre 0 Electrical: Wilkes-Barre E E M
8815 5 Wilkes Barre 0 Lighting: Wilkes-Barre U E M
8872 5 Wilkes Barre 0 Electrical: Wilkes-Barre U E M
7848 5 Wilkes Barre 0 Carpentry: Wilkes-Barre E-Z U E M
5915 5 Wilkes Barre 0 Electrical: Broken U E M
6642 5 Wilkes Barre 0 Plumbing: Wilkes-Barre Int. U E M
7456 5 Wilkes Barre 0 Electrical: Ground Wire U E M
7552 5 Wilkes Barre 0 Lighting: Wilkes-Barre U E M
7463 5 Wilkes Barre 0 Carpentry: Wilkes-Barre U E M
7536 5 Wilkes Barre 0 Plumbing: Wilkes-Barre U E M
7469 5 Wilkes Barre 0 Plumbing: Wilkes-Barre U E M
10471 5 Wilkes Barre 0 Plumbing: Wilkes-Barre U E M
10325 5 Wilkes Barre 0 Lighting: Wilkes-Barre U E M
9980 5 Wilkes Barre 0 Plumbing: Wilkes-Barre U E M
9795 5 Wilkes Barre 0 EZPass: Wilkes-Barre U E M
9816 5 Wilkes Barre 0 Roofs: Wilkes-Barre U E M
9012 5 Wilkes Barre 0 EZPass: Wilkes-Barre U E M
8955 5 Wilkes Barre 0 Plumbing: Wilkes-Barre U E M
Close
Reset Column Width

Figure 5.6 - Possible Duplicates List

2. Double-clicking, or selecting a request and clicking **Edit**, will open a Work Request Initial Plan view for the user to compare with the current request. If the user discerns that two or more requests are duplicates, he can Cancel one or more of them to prevent the Work Order from being attempted twice. Requests can be Cancelled from the Initial Planning tab of the Work Request form.
3. Click **Print** to open the Print Control Panel.
4. If you determine that your request is a duplicate, click the **Cancel Request** button found immediately under the **Find Possible Duplicates** button **(figure 5.5)**

Category

The Category of a work order is determined by the Urgency chosen on the Work Request Panel when the request was created and can not be changed by the user. Routine and Urgent requests will have a Non-Recurring category assigned. Emergency requests will have an Emergency category assigned. Users are not capable of creating Routing Recurring requests as these are solely generated by the Planning System. **(Figure 5.7)**:

a. Emergency

b. Non-recurring

Figure 5.7 - Request Categories

Classification

The Classification is largely driven by the Urgency chosen on the Work request panel when the request was created. Emergency requests are classified as Must Do. Urgent requests are classified as Must Do. Routine Non-Recurring requests can be assigned by the user as Must Do, Should Do, or Additional Requirements. **(Figure 5.8)**:

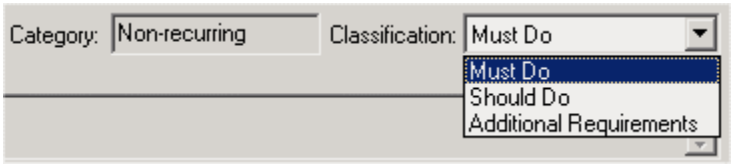

Figure 5.8 - Request Classifications

Cost Estimates

The first step in developing a Cost Estimate **(Figure 5.9)** is to review the work request and gather any additional information. It should be noted that a Cost Estimate is only an estimation of time, manpower and materials.

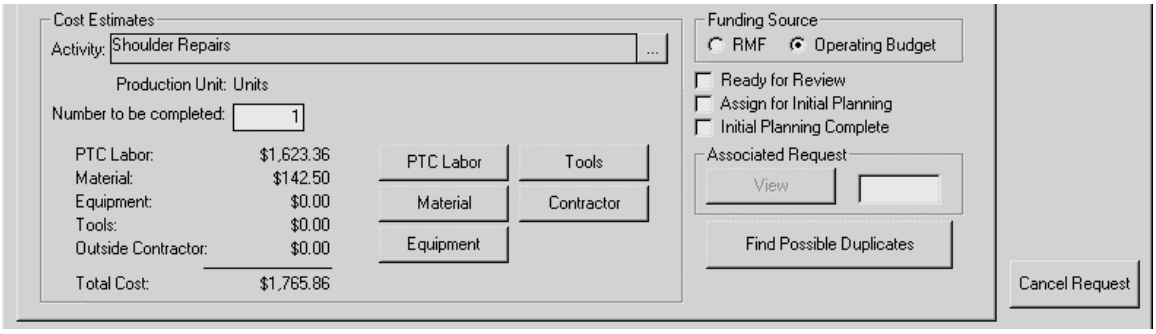

Figure 5.9 - Cost Estimates

There are five categories of Cost Estimates that may be added to the plan.

a. PTC Labor
b. Materials
c. Tools
d. Equipment
e. Contractors

PTC Labor must be specified in order to enable the Work Request "Initial Planning Complete" checkbox. Any or all of the remaining resource categories may be needed for a Work Order. These resources can be added to or modified later during Detail Planning,

or even during work in progress (Unplanned). SOMS will track when and in which phase the resources were added.

Creating a Cost Estimate (Highway ONLY)

1. When the work request title was selected a default planning activity was assigned. That planning activity can contain any number of preplanned resources. If another planning activity is known to contain a better suited list of resources for the work involved, it can be selected from the Activity drop down **(Figure 5.10)** by clicking the Activity Drop-down button ('…'). This will display a list of Activities to select from.

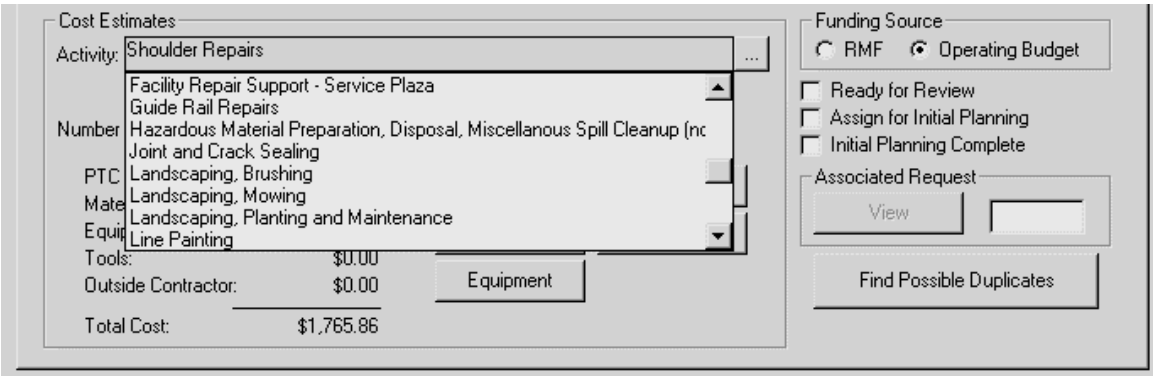

Figure 5.10 - Activity List

2. Select the appropriate Activity.
3. Once an activity has been selected, you will be warned that all planning information will be replaced with the default planning information for the activity selected, **INCLUDING LABOR, INITIAL PLAN WORK DESCRIPTION, IMPACT DESCRIPTION and COMMENTS**. **(Figure 5.11)**

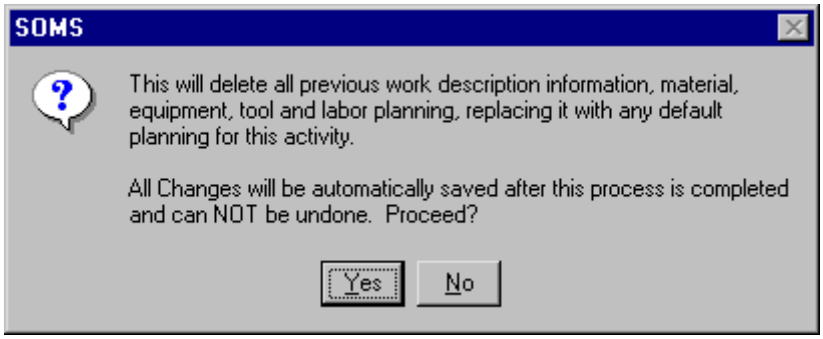
SOMS
This will delete all previous work description information, material, equipment, tool and labor planning, replacing it with any default planning for this activity.
All Changes will be automatically saved after this process is completed and can NOT be undone. Proceed?
Yes
No

Figure 5.11 - Activity Planning Confirmation

4. Enter the number of production units to be completed. **(Figure 5.12)**

Figure 5.12 - Production Units to be Completed

Initial Plan Work Description

Edit any pre-loaded description to include a listing or description of the work to be performed, including preparations, setup, steps to accomplish, safety concerns, clean up, tests and inspections as applicable.

Impact Description

If the work will impact on operations, impose serious health risks, or require special or unique equipment, those requirements should be listed here.

Comments

The comments field is provided for the users to use at their own descretion.

Customizing the Cost Estimate (Initial Plan) (Highway/Facility)

Now that a basic cost estimate has been added to the plan, you can add new items or delete or modify portions of the plan with planning information appropriate to the request. For example, a Non-Recurring activity selected with the title of 'Joint & Crack Sealing' may start with default planning information such as specific pieces of maintenance equipment. While none of the default planning information for an activity will populate exact quantities and costs of equipment or materials, it will add the items for you to the planning. You can then customize this information to fit the needs of the request.

PTC Labor

Clicking the PTC Labor button will open the PTC Labor screen for planning labor resources. This screen is used identically for Initial Planning and Detail Planning, and is discussed under it's own section later in this document.

Material

Clicking the Material button will open the Materials screen for planning material resources. This screen is used identically for Initial Planning, Detail Planning and Unplanned material requirements, and is discussed under it's own section later in this document.

Equipment

Clicking the Equipment button will open the Equipment screen for planning equipment resources. This screen is used identically for Initial Planning, Detail Planning and Unplanned equipment requirements, and is discussed under it's own section later in this document.

Tools

Clicking the Tools button will open the Tools screen for planning tool resources. This screen is used identically for Initial Planning, Detail Planning and Unplanned tool requirements, and is discussed under it's own section later in this document.

Contractor

Clicking the Contractor button will open the Contractor screen for planning the use of contractors. This screen is used identically for Initial Planning and Detail Planning, and is discussed under it's own section later in this document.

Finalizing Plan Information

Once all of the resources have been entered into the plan, the planner must finalize the information for viewing. To finalize the plan from the Initial Plan Information Form:

5. Ready for Review is an indicator for the Operations Managers that the Foreman/Trade Supervisor is finished preparing a Draft request and they should review it for submission to the COP.
6. When all of the Initial Plan Information has been entered, click Initial Planning Complete (COP only). Only when labor has been planned for the request will the Initial Planning Complete become enabled. **(Figure 5.13)**

Figure 5.13 - Initial Planning Checkboxes

7. Click **OK** to save the form.

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Section 6

Prioritizing Non-Recurring Work Requests

Opening the Queue

Non-recurring Requests marked 'Initial Planning Complete' are added to the 'Non-recurring Requests Prioritization Queue'. This screen, which is opened from the Main screen, can only be accessed by the Central Office Planner or the Administrator. Click the Utilities menu button and select Prioritize Nonrecurring Requests. **(Figure 6.1)**

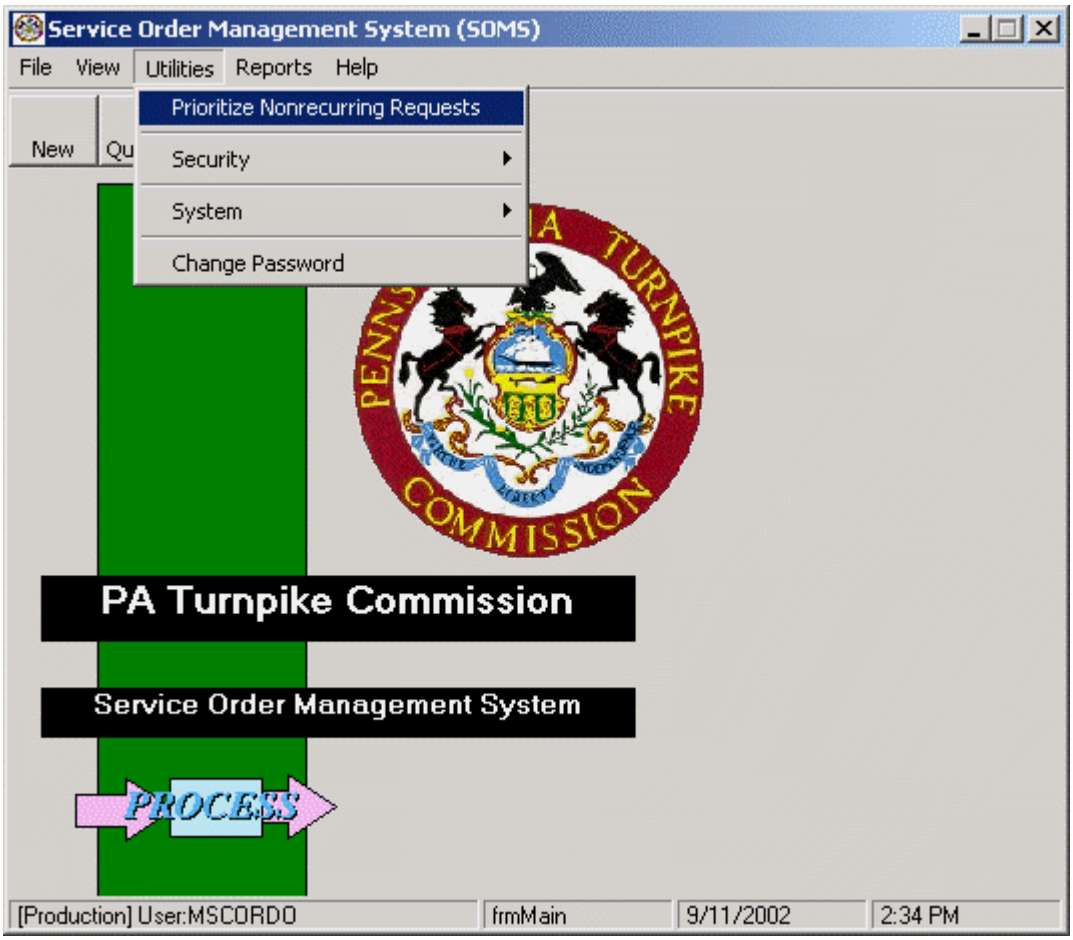
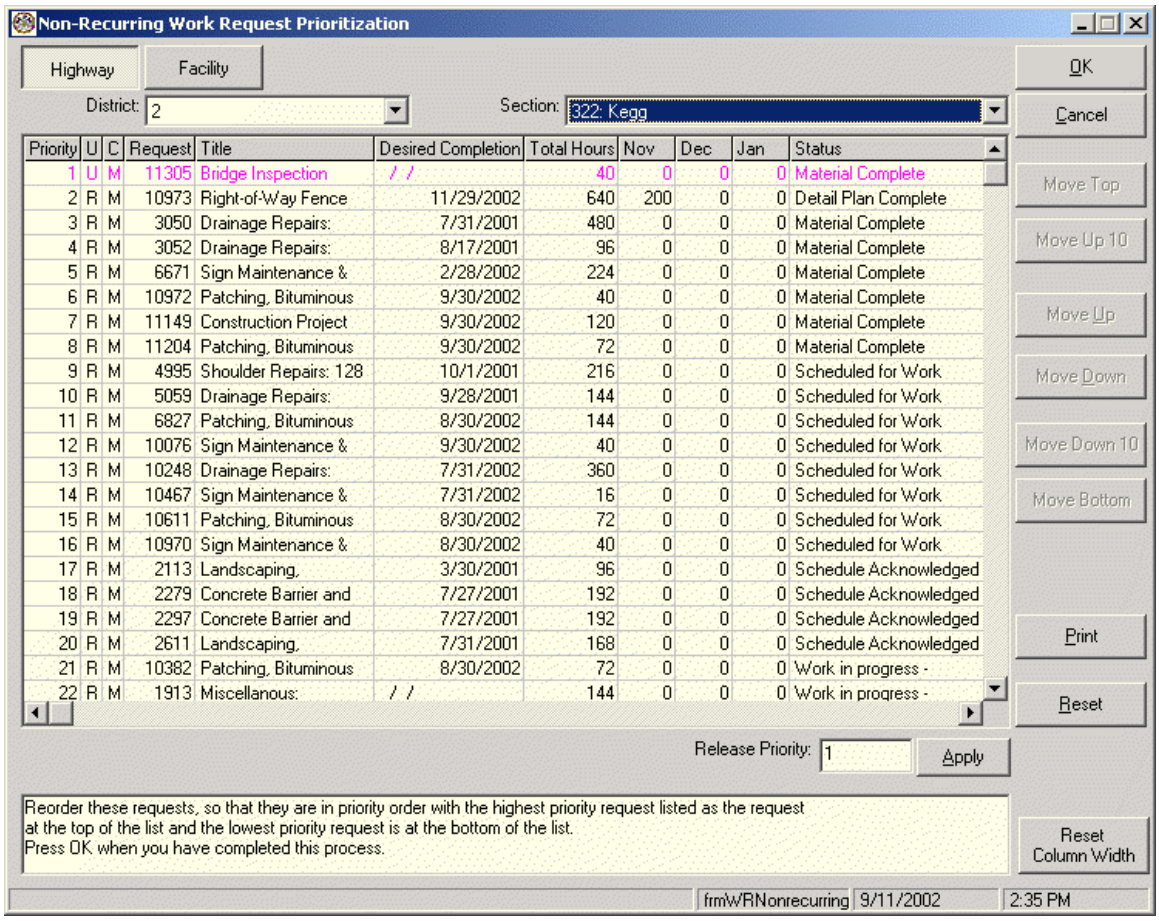


Figure 6.1 - Prioritize Non-Recurring Requests

Selecting the Appropriate View

The Non-recurring Work Request Prioritization screen has two views:

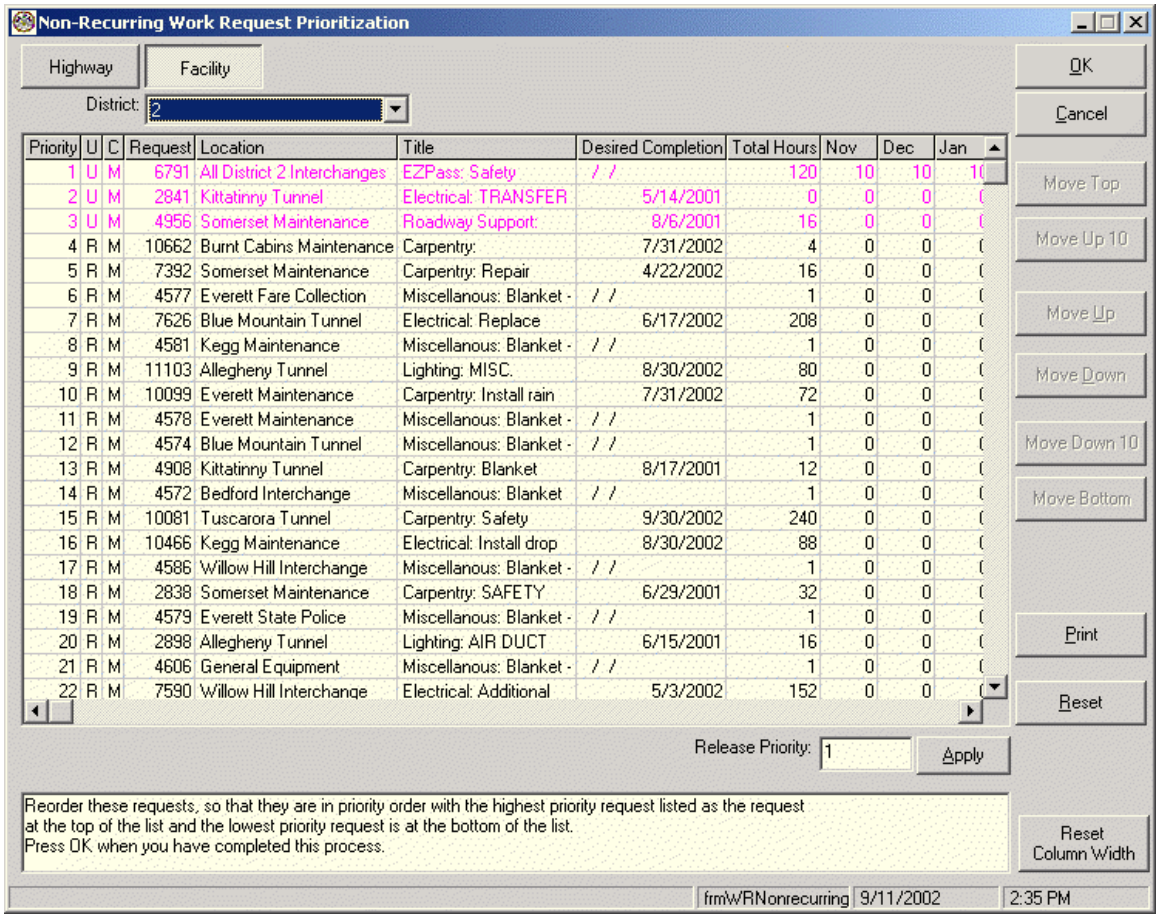
1. Highway **(Figure 6.2)**



Priority	U	C	Request	Title	Desired Completion	Total Hours	Nov	Dec	Jan	Status
1	U	M	11305	Bridge Inspection	/ /	40	0	0	0	Material Complete
2	R	M	10973	Right-of-Way Fence	11/29/2002	640	200	0	0	Detail Plan Complete
3	R	M	3050	Drainage Repairs:	7/31/2001	480	0	0	0	Material Complete
4	R	M	3052	Drainage Repairs:	8/17/2001	96	0	0	0	Material Complete
5	R	M	6671	Sign Maintenance &	2/28/2002	224	0	0	0	Material Complete
6	R	M	10972	Patching, Bituminous	9/30/2002	40	0	0	0	Material Complete
7	R	M	11149	Construction Project	9/30/2002	120	0	0	0	Material Complete
8	R	M	11204	Patching, Bituminous	9/30/2002	72	0	0	0	Material Complete
9	R	M	4995	Shoulder Repairs: 128	10/1/2001	216	0	0	0	Scheduled for Work
10	R	M	5059	Drainage Repairs:	9/28/2001	144	0	0	0	Scheduled for Work
11	R	M	6827	Patching, Bituminous	8/30/2002	144	0	0	0	Scheduled for Work
12	R	M	10076	Sign Maintenance &	9/30/2002	40	0	0	0	Scheduled for Work
13	R	M	10248	Drainage Repairs:	7/31/2002	360	0	0	0	Scheduled for Work
14	R	M	10467	Sign Maintenance &	7/31/2002	16	0	0	0	Scheduled for Work
15	R	M	10611	Patching, Bituminous	8/30/2002	72	0	0	0	Scheduled for Work
16	R	M	10970	Sign Maintenance &	8/30/2002	40	0	0	0	Scheduled for Work
17	R	M	2113	Landscaping,	3/30/2001	96	0	0	0	Schedule Acknowledged
18	R	M	2279	Concrete Barrier and	7/27/2001	192	0	0	0	Schedule Acknowledged
19	R	M	2297	Concrete Barrier and	7/27/2001	192	0	0	0	Schedule Acknowledged
20	R	M	2611	Landscaping,	7/31/2001	168	0	0	0	Schedule Acknowledged
21	R	M	10382	Patching, Bituminous	8/30/2002	72	0	0	0	Work in progress -
22	R	M	1913	Miscellanous:	/ /	144	0	0	0	Work in progress -

Figure 6.2 - Prioritize Non-Recurring Requests

2. Facility **(Figure 6.3)**



Priority	U	C	Request	Location	Title	Desired Completion	Total Hours	Nov	Dec	Jan
1	U	M	6791	All District 2 Interchanges	EZPass: Safety	/ /	120	10	10	1
2	U	M	2841	Kittatinny Tunnel	Electrical: TRANSFER	5/14/2001	0	0	0	
3	U	M	4956	Somerset Maintenance	Roadway Support:	8/6/2001	16	0	0	
4	R	M	10662	Burnt Cabins Maintenance	Carpentry:	7/31/2002	4	0	0	
5	R	M	7392	Somerset Maintenance	Carpentry: Repair	4/22/2002	16	0	0	
6	R	M	4577	Everett Fare Collection	Miscellanous: Blanket -	/ /	1	0	0	
7	R	M	7626	Blue Mountain Tunnel	Electrical: Replace	6/17/2002	208	0	0	
8	R	M	4581	Kegg Maintenance	Miscellanous: Blanket -	/ /	1	0	0	
9	R	M	11103	Allegheny Tunnel	Lighting: MISC.	8/30/2002	80	0	0	
10	R	M	10099	Everett Maintenance	Carpentry: Install rain	7/31/2002	72	0	0	
11	R	M	4578	Everett Maintenance	Miscellanous: Blanket -	/ /	1	0	0	
12	R	M	4574	Blue Mountain Tunnel	Miscellanous: Blanket -	/ /	1	0	0	
13	R	M	4908	Kittatinny Tunnel	Carpentry: Blanket	8/17/2001	12	0	0	
14	R	M	4572	Bedford Interchange	Miscellanous: Blanket	/ /	1	0	0	
15	R	M	10081	Tuscarora Tunnel	Carpentry: Safety	9/30/2002	240	0	0	
16	R	M	10466	Kegg Maintenance	Electrical: Install drop	8/30/2002	88	0	0	
17	R	M	4586	Willow Hill Interchange	Miscellanous: Blanket -	/ /	1	0	0	
18	R	M	2838	Somerset Maintenance	Carpentry: SAFETY	6/29/2001	32	0	0	
19	R	M	4579	Everett State Police	Miscellanous: Blanket -	/ /	1	0	0	
20	R	M	2898	Allegheny Tunnel	Lighting: AIR DUCT	6/15/2001	16	0	0	
21	R	M	4606	General Equipment	Miscellanous: Blanket -	/ /	1	0	0	
22	R	M	7590	Willow Hill Interchange	Electrical: Additional	5/3/2002	152	0	0	

Figure 6.3 - Prioritize Non-Recurring Requests

Note that the Facility view displays three months of planned labor hours, beginning two months after the current month.

The user will select the District to view by clicking the District Drop-down arrow. Highway Work Requests also require that a Section be selected from the Section Drop-down list. This will populate a grid with the work requests for that particular area. **Move** buttons are available to change the priority of the selected Work Request. A **View** button is available to produce a detailed report for the selected Request.

Changing the Priority Order

1. Select a request from the grid.
2. Click **Move Up** to send the request up one level on the grid.

3. Click **Move Up** until the request is placed in the desired order.
4. Click **Move Down** to send a request down one level on the grid.
5. Click **Move Down** until the request is in the desired order.
6. DO NOT CLICK **OK** UNTIL YOU ARE SURE THE ORDER IS CORRECT!

Resetting the Priority Order

The **Reset** button will restore the list order to its original state. This button must be clicked PRIOR to clicking the OK button or the original setting will be lost.

Using Release Priority

If the user knows where a selected request should be placed in the list:

1. Click the request to be moved.
2. Enter the **New Position** number for the selected request in the Release Priority field.
3. Click **Apply**. This will move the request to the desired position in the list.

Finish Prioritizing

Once the user is satisfied that the list is in the proper order, click **OK**. This will save the list in its current order.

Once the Work Requests are in the correct priority, the Central Office Planner must Release the request for Detailing. This is done from the Release for Detailing Queue.

Section 7

Release for Detailing

The Central Office Planner uses the Release for Detailing screen to review both Recurring and Non-Recurring Work Orders.

Selecting Release for Detailing Queue from the Queues button of the Main screen opens the Release for Detailing screen.

Once the screen is opened, select the appropriate location by clicking **Highway** or **Facility** in the upper left portion of the screen, select the location information and then press the **GO** button. **(Figure 7.1)** The last location selected will be shown in the **Currently Loaded** information area.

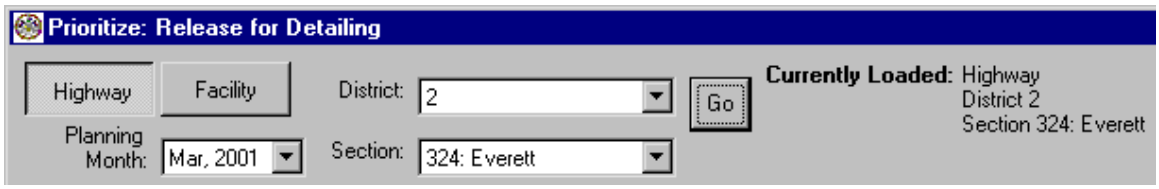


Figure 7.1 - Release for Detailing View Selection

When the Central Office Planner is satisfied with the prioritization of the work requests, he can release the selected Work Orders for Detailing. Clicking the Release for Detailing check box near the bottom of the screen, or clicking the X column at the left of the grid accomplishes this. To release multiple Work Orders quickly, the Planner can click on the first Work Order to be released and while still holding in the Mouse Button, drag the pointer down across the rows to be selected, then slide the pointer to the **X** in the left-most column before releasing the button. This technique can be used to Release or Un-Release multiple Work Orders. It is important to have released each Work Order in time to complete the Detail Plan and still allow the Section Foreman or Trade Supervisor to make crew labor assignments within the month for which labor was planned, as indicated at the bottom of the Release for Detailing screen.

Once the Work Order is Released for Detailing it is added to the Work Order Detailing Queues for Highway and Facility. These queues are accessible by the appropriate District Operations Managers and Resource Manager to add the final details to the Work Order plan.

Section 7a - Highway

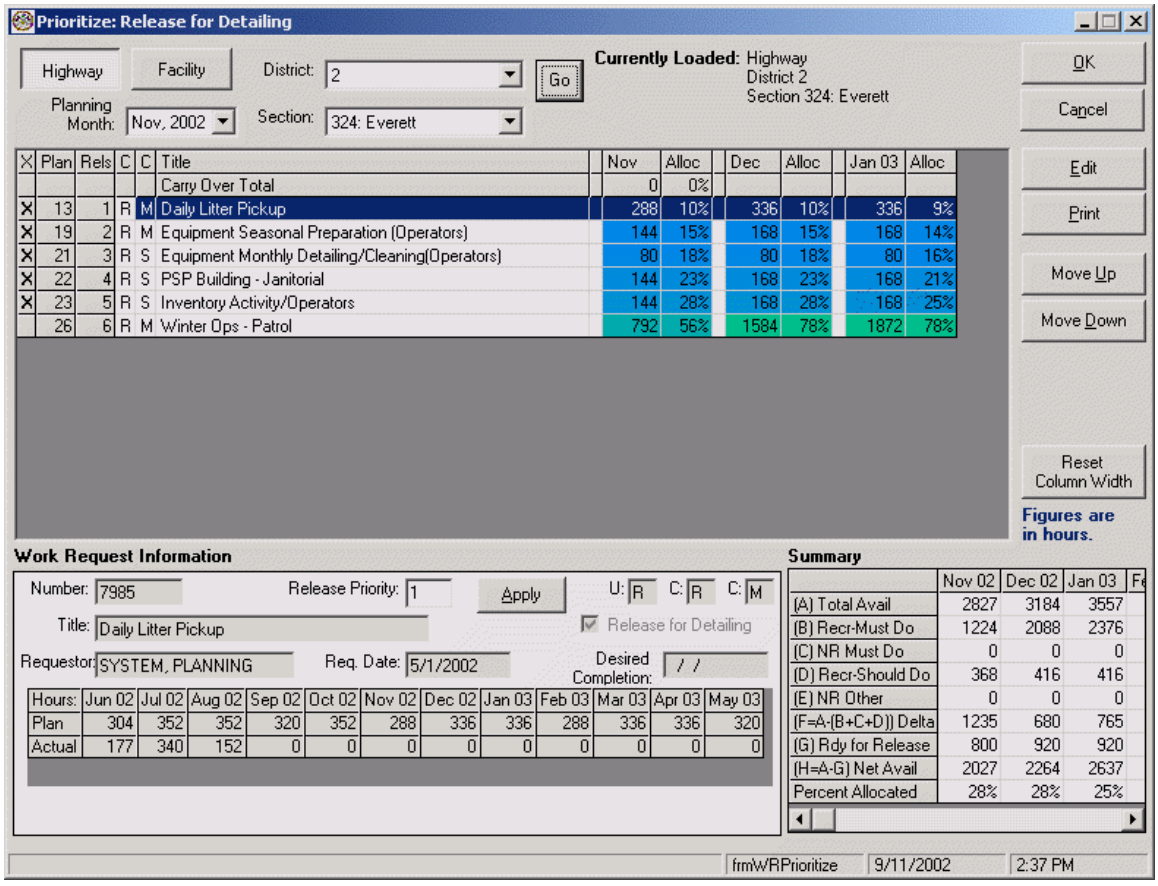


Figure 7.2 - Release for Detailing Screen: Highway

This screen displays all Highway Work Requests for the selected month (or any of the two following months) and location, that have completed Initial Plans. Also shown are any work requests that have been completed Initial Planning, but have all hours planned in months prior to the planning month (these are shown with a '<' symbol next to the hours planned).

Edit Initial Plan

The **Edit** button allows the planner to easily review and edit the Initial Plan for the Work Order selected in the Main Grid.

Prioritize

Adjustments can be made to the Priority of work orders with the **Move Up** and **Move Down** buttons, or by entering the desired priority number for the selected Work Order into the **Release Priority** field at the bottom of the screen and clicking the **Apply** button.

The Main Grid

The dated columns on the right half of the main grid show the PTC Labor allocations for the next 3 months for each Highway Work Order. **(Figure 7.2)** Also displayed in the grid are any work request with all their planning in months prior the planning month that have not been released yet (these are shown with a total of all their planning hours in the planning month column with a '<' symbol behind it). The colors will range from Blue through Green to Red to illustrate the percentage of total available resources planned. Blue indicates minimum resource utilization, while Green indicates optimum planning of about 100%. The color turns red if more than 120% of available PTC Labor is necessary to complete all listed Work Orders. Those user using 256 color modes will see the red color as a yellow color, making it easier to read the numbers.

The Summary Grid

The Summary Grid in the lower right of the screen displays planned versus allocated labor hours. **(Figure 7.3)** The 12 months following the selected Planning Month are included in this grid and can be viewed by using the Horizontal Scroll Bar at the bottom of the grid. An explanation of each row in the grid follows:

(A) Total Available – displays the crew hours available each month at the selected location, minus the emergency work hours estimated for the month.

(B) Recr-Must Do – displays the 'Must Do' labor hours planned from the Annual Work Plan for each month at this location.

(C) NR Must Do – displays the 'Must Do' Non-recurring work hours already planned for each month at this location.

(D) Recr-Should Do – displays the 'Should Do' labor hours planned from the Annual Work Plan for each month at this location.

(E) NR Other – displays the remaining Non-recurring labor hours already planned for each month at this location.

(F) Delta – Total Available Hours remaining after subtracting Recr-Must Do, NR Must Do, and Recr-Should Do.

(G) Rdy for Release – The total hours from each Work Request on the Main Grid that have been checked "Release for Detailing".

(H) Net Available – Total Available Hours remaining after subtracting only the Work Requests that have been checked "Release for Detailing".

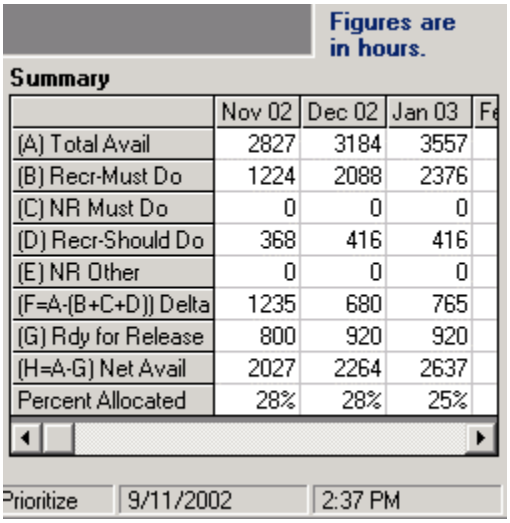

Figures are in hours.
Summary
Nov 02
Dec 02
Jan 03
(A) Total Avail 2827 3184 3557
(B) Recr-Must Do 1224 2088 2376
(C) NR Must Do 0 0 0
(D) Recr-Should Do 368 416 416
(E) NR Other 0 0 0
(F=A-(B+C+D)) Delta 1235 680 765
(G) Rdy for Release 800 920 920
(H=A-G) Net Avail 2027 2264 2637
Percent Allocated 28% 28% 25%
Prioritize
9/11/2002
2:37 PM

Figure 7.3 - Release for Detailing: Summary Grid

Work Request Information

This section displays basic information for the Work Request selected in the Main Grid. **(Figure 7.4)**

A **Release for Detailing** checkbox is available, which serves the same purpose as clicking in the X column on the main grid. Work Requests released for detailing will appear in the **Work Request Detailing Queue** for Detail Planning. The **Work Request Detailing Queue** can be accessed via the Queues button on the Main Screen.

At the bottom of the Work Request Information screen is displayed the hours planned for the selected Work Request for the next 12 consecutive months, beginning with the Planning Month selected at the top of the screen.

For released work orders any actual hours worked are shown in the Actual fields corresponding to the month the work was performed.

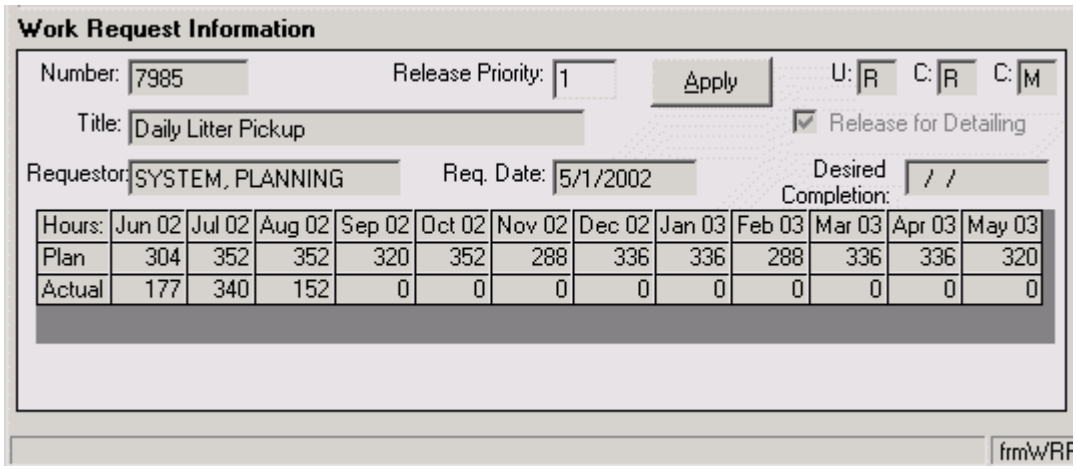

Work Request Information
Number: 7985
Release Priority: 1
Apply
U: R C: R C: M
Title: Daily Litter Pickup
Release for Detailing
Requestor: SYSTEM, PLANNING
Req. Date: 5/1/2002
Desired Completion: / /
Hours: Jun 02 Jul 02 Aug 02 Sep 02 Oct 02 Nov 02 Dec 02 Jan 03 Feb 03 Mar 03 Apr 03 May 03
Plan 304 352 352 320 352 288 336 336 288 336 336 320
Actual 177 340 152 0 0 0 0 0 0 0 0 0
frmWR

Figure 7.4 - Release for Detailing –Work Request Information

Section 7b – Facility

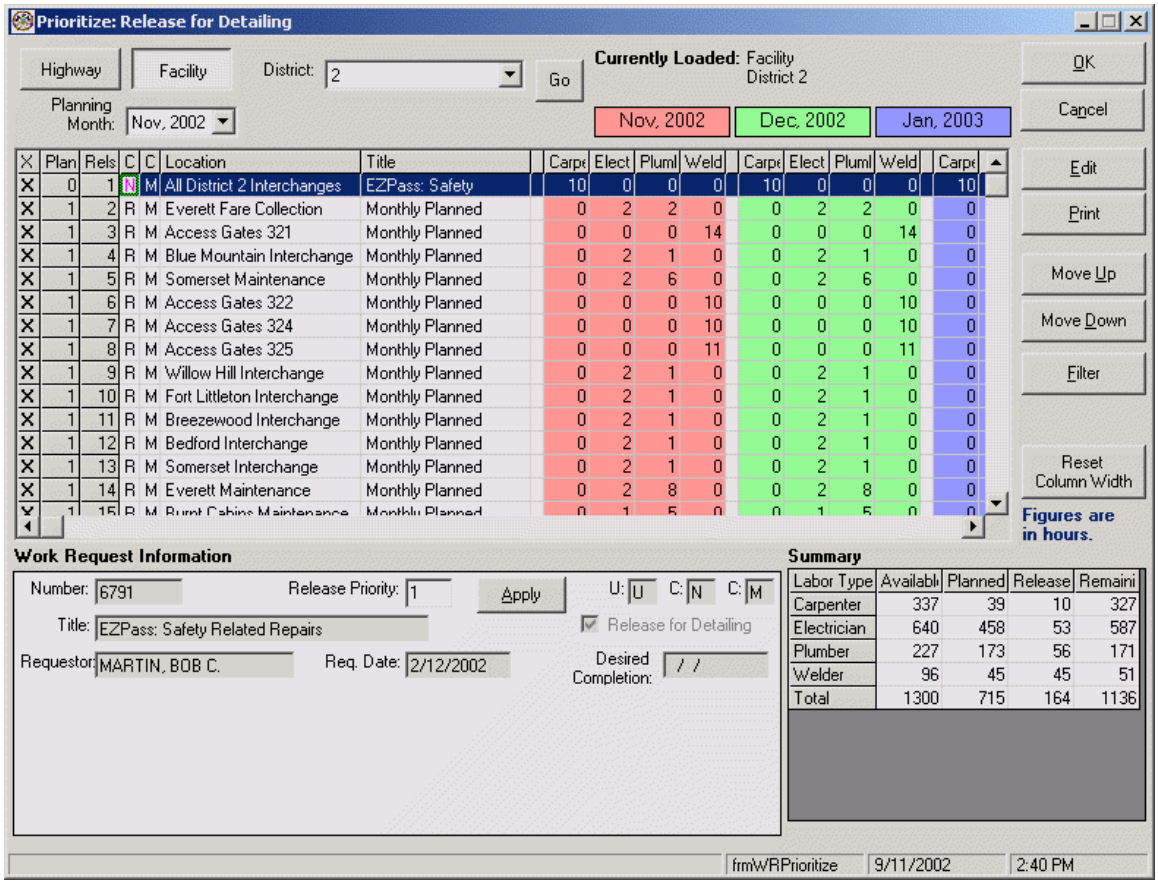


Figure 7.5 - Release for Detailing Screen: Facility

This screen displays all Facility Work Requests for the selected month (or any of the two following months) and location, that have completed Initial Plans. Also shown are any work requests that have been completed Initial Planning, but have all hours planned in months prior to the planning month (these are shown with a '<' symbol next to the hours planned).

Edit Initial Plan

The **Edit** button allows the planner to easily review and edit the Initial Plan for the selected Work Order.

Prioritize

Adjustments can be made to the Priority of work orders with the **Move Up** and **Move Down** buttons, or by entering the desired priority number for

the selected Work Order into the **Release Priority** field at the bottom of the screen and clicking the **Apply** button.

The Main Grid

The dated columns on the right half of the main grid show the PTC Labor allocations for the next 3 months for each Facility Work Order. **(Figure 7.5)** Also displayed in the grid are any work request with all their planning in months prior the planning month that have not been released yet (these are shown with a total of all their planning hours in the planning month column with a '<' symbol behind it).

The Summary Grid

The Summary Grid in the lower right of the screen displays planned versus available labor hours for each labor type for the selected month. **(Figure 7.6)**

There are five columns:

1. The **Labor Type** column lists each of the possible labor types.

2. The **Available** column indicates the Facility's total monthly available labor hours for each given labor type, minus a predetermined percentage to cover Emergency work orders.

3. The **Planned** column shows the hours allocated in the Initial Plan for each Labor Type that month.

4. The **Release** column gives the total hours for only the Work Orders **Released for Detailing** in the Main Grid.

5. The **Remaining** column shows the remaining available hours after the **Released** hours have been subtracted.

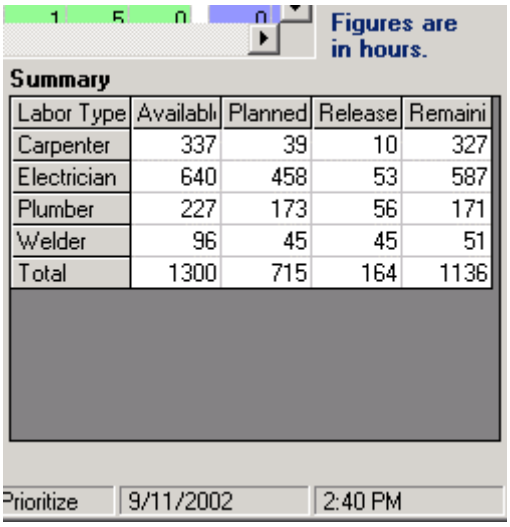

Figures are in hours.
Summary
Labor Type | Availabl | Planned | Release | Remaini
Carpenter | 337 | 39 | 10 | 327
Electrician | 640 | 458 | 53 | 587
Plumber | 227 | 173 | 56 | 171
Welder | 96 | 45 | 45 | 51
Total | 1300 | 715 | 164 | 1136
Prioritize
9/11/2002
2:40 PM

Figure 7.6 - Release for Detailing Screen: Facility

Work Request Information

This section displays basic information for the Work Request selected in the Main Grid. **(Figure 7.7)**

A **Release for Detailing** checkbox is available, which serves the same purpose as clicking in the X column on the main grid. Work Requests released for scheduling will appear in the **Work Request Detailing Queue** for Detail Planning. The **Work Request Detailing Queue** can be accessed via the Queues button on the Main Screen.

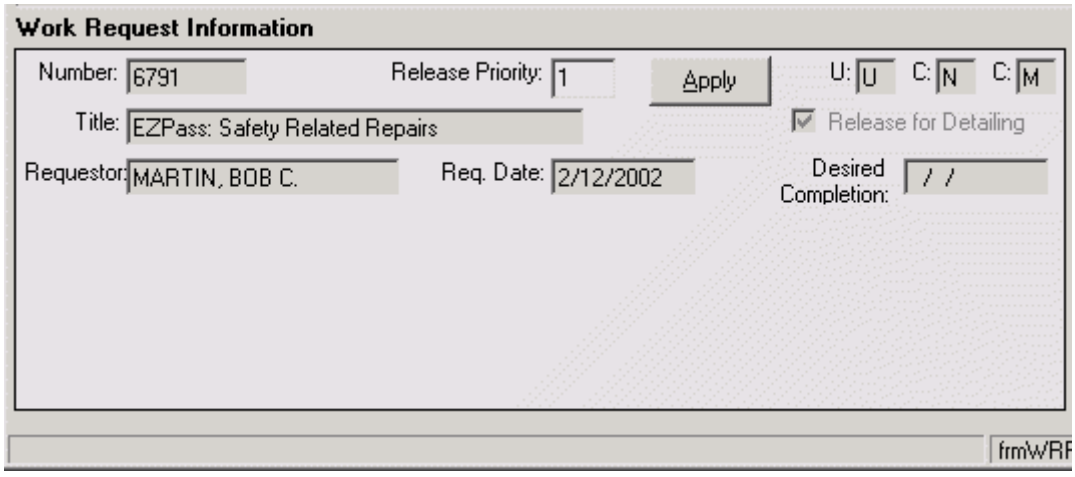


Figure 7.7 - Release for Detailing: Work Request Information

Section 8

Detail Planning

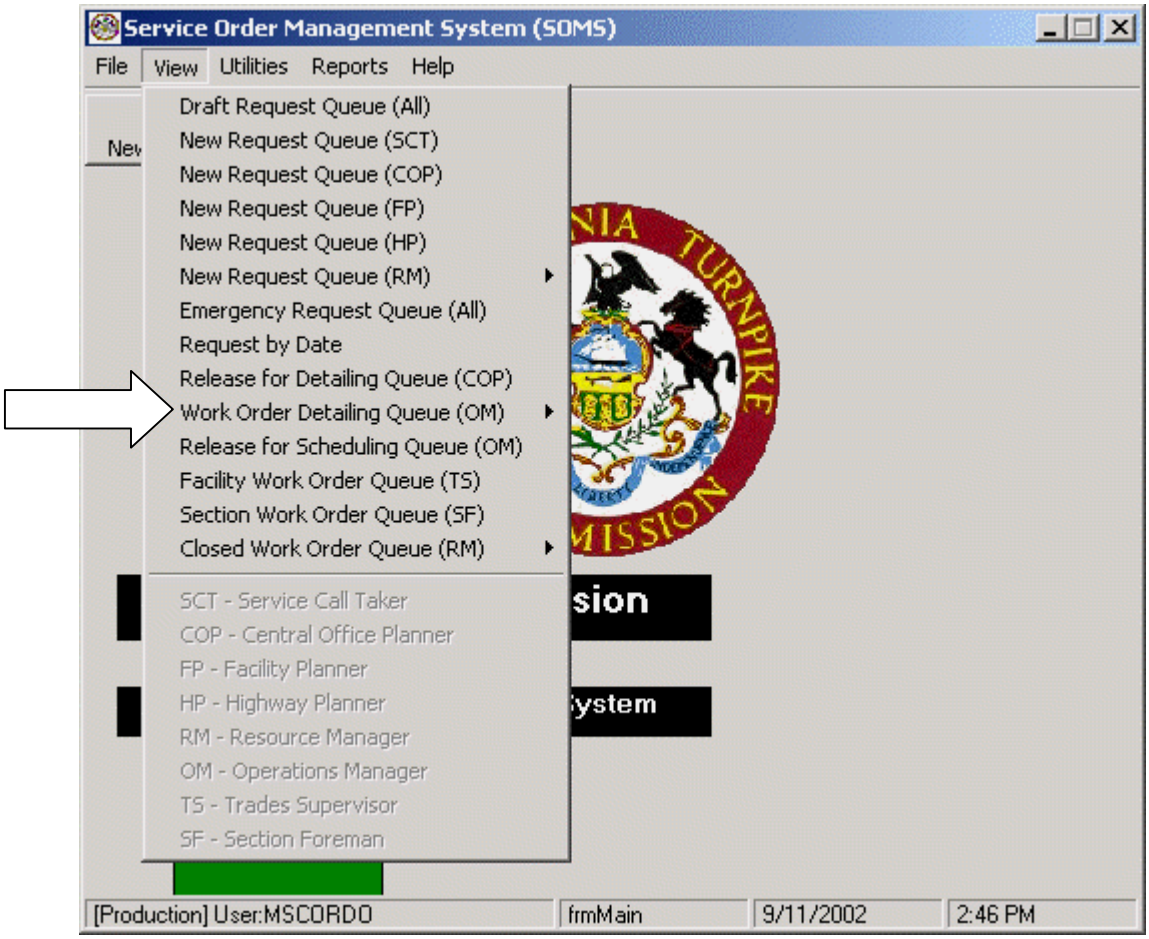


Figure 8.1 - Queues: Work Order Detailing Queue

Work Order Detailing Queue

The Work Order Detailing Queue, opened from the Main Screen **Queues** button, contains a list of Work Orders ready for Detail Planning. This list is specific to each District Operations Manager. From here the Manager can edit the Detail Plan for any of the Work Orders that have been Released for Detailing in his District by selecting the Work Order

and clicking the **Edit** button. The **View** button creates a Crystal Report that shows the details of the selected Work Order.

Opening Work Order Detailing Queue (**Figure 8.1**)

1. Click the **Queues** menu button.
2. Click **Work Order Detailing Queue.**

Using the Work Order Detailing Queue Screen (Figure 8.2)

The user may print a single order or the entire list, view a single order, or edit a order.

To Print, Edit or View a single order

1. Click the appropriate order.
2. Click **Print** to open the Print Control Panel for all available print options.
3. Click **Edit** to display the Detail Plan Information Tab of the Work Order screen. **(Figure 8.3)**

To Save a Planning Worksheet from the Queue

1. Click 'Save Worksheet…' button. This will ask you where to save the Excel worksheet you can use to help plan the work order.

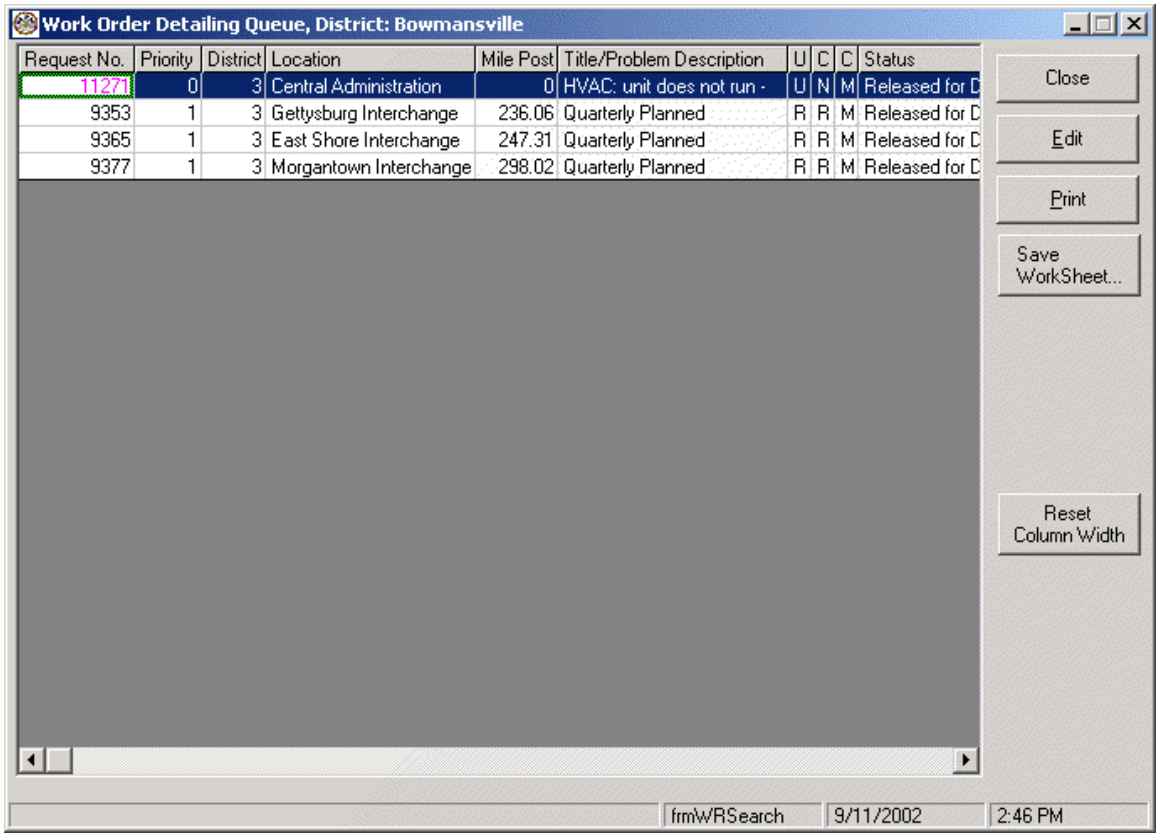

Work Order Detailing Queue, District: Bowmansville
Request No. | Priority | District | Location | Mile Post | Title/Problem Description | U | C | C | Status
11271 | 0 | 3 | Central Administration | 0 | HVAC: unit does not run - | U | N | M | Released for D
9353 | 1 | 3 | Gettysburg Interchange | 236.06 | Quarterly Planned | R | R | M | Released for D
9365 | 1 | 3 | East Shore Interchange | 247.31 | Quarterly Planned | R | R | M | Released for D
9377 | 1 | 3 | Morgantown Interchange | 298.02 | Quarterly Planned | R | R | M | Released for D
Close
Edit
Print
Save WorkSheet...
Reset Column Width
frmWRSearch
9/11/2002
2:46 PM

Figure 8.2 - Work Order Detailing Queue

Detail Planning

The Detail Planning Queue holds Work Orders which require Detail Planning. As Work Requests are prioritized and released for detailing, they are listed in the Detail Planning queue and are ready for the District Operations Managers to begin the detail planning process.

Opening the Detail Information Planning Tab

1. Open the Detail Planning screen by selecting the Work Order Detailing Queue from the **Queues** button on the Main Screen. **(Figure 8.1)**
2. Select the Work Request from the Main Grid displayed and click the **Edit** button. **(Figure 8.2)**
3. The Work Request screen Detail Planning Information tab will appear. **(Figure 8.3)**

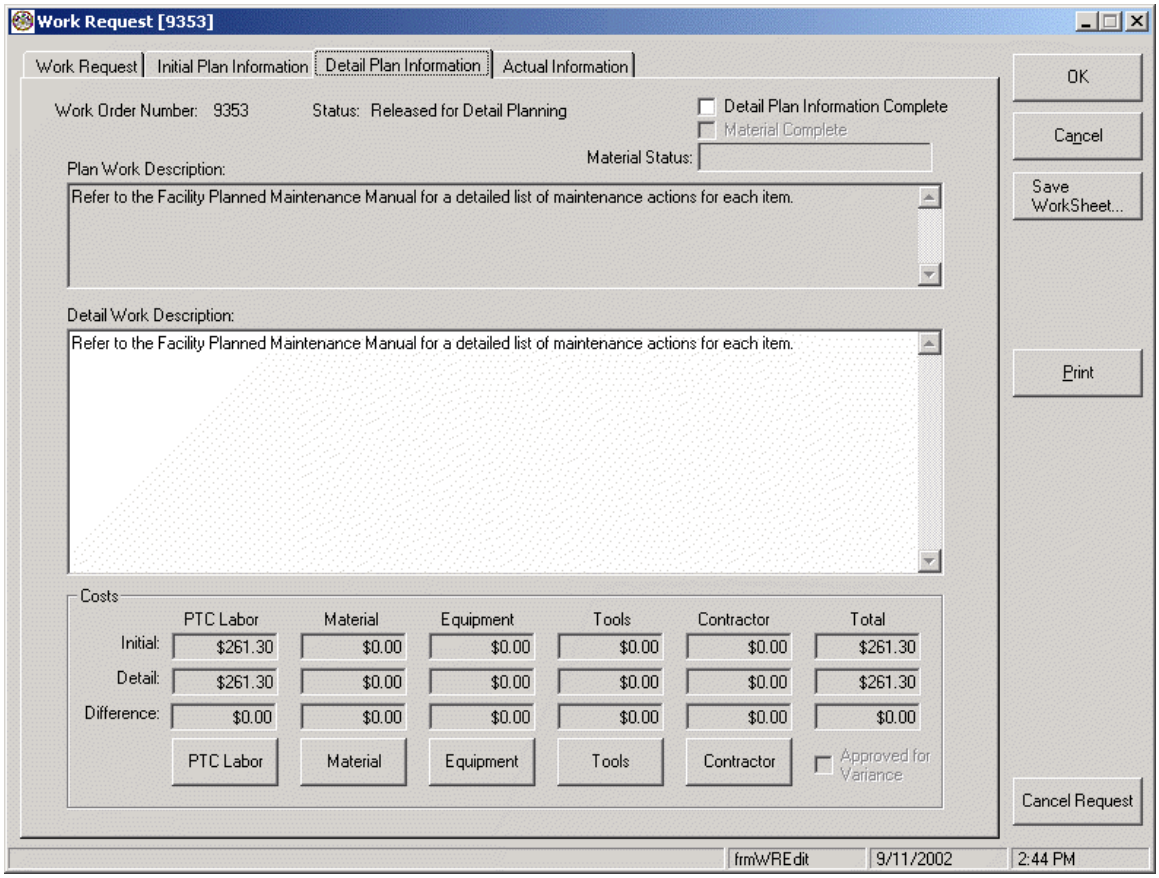


Figure 8.3 Detail Planning Tab

Performing Detail Planning

The user may click on any of the tabs available on this screen to review the Work Request information. He can add to the Detail Work Description as necessary.

A summary of the resources required for this Work Request appears at the bottom of the screen. **(Figure 8.4)** The user may review, edit, or add each of the various resources by clicking on the specific resource button.

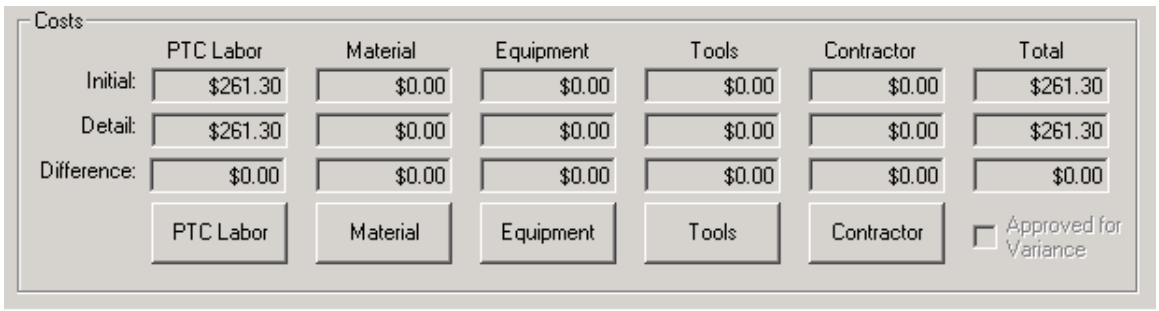


Figure 8.4 - Cost Estimate Detail

PTC Labor

Clicking the PTC Labor button will open the PTC Labor screen for planning labor resources. This screen is used identically for Initial Planning and Detail Planning, and is discussed under it's own section later in this document. If significant resources are added that would exceed the allowable variance amount, the user is notified upon returning to the Detail Plannning screen (**Figure 8.5**).

Material

Clicking the Material button will open the Materials screen for planning material resources. This screen is used identically for Initial Planning, Detail Planning and Unplanned material requirements, and is discussed under it's own section later in this document. If significant resources are added that would exceed the allowable variance amount, the user is notified upon returning to the Detail Plannning screen (**Figure 8.5**).

Equipment

Clicking the Equipment button will open the Equipment screen for planning equipment resources. This screen is used identically for Initial Planning, Detail Planning and Unplanned equipment requirements, and is discussed under it's own section later in this document. If significant resources are added that would exceed the allowable variance amount, the user is notified upon returning to the Detail Plannning screen (**Figure 8.5**).

Tools

Clicking the Tools button will open the Tools screen for planning tool resources. This screen is used identically for Initial Planning, Detail Planning and Unplanned tool requirements, and is discussed under it's own section later in this document. If significant resources are added that would exceed the allowable variance amount, the user is notified upon returning to the Detail Plannning screen (**Figure 8.5**).

Contractor

Clicking the Contractor button will open the Contractor screen for planning the use of contractors. This screen is used identically for Initial Planning and Detail Planning, and is discussed under it's own section later in this document. If significant resources are added that would exceed the allowable variance amount, the user is notified upon returning to the Detail Plannning screen (**Figure 8.5**).

Allowable Variance

The allowable variance between the Initial Plan total cost and Detail Plan total cost is goverened by these rules.If the Detail Plan Total Cost is either

$5,000 or more, greater than the Initial Plan Total Cost or

50% of the IP Total Cost or more, greater than the IP Total Cost

then the work request will require approval from the COP prior to being processed further in the system.

Figure 8.5 Variance Allowance Exceeded Message

Detail Information Complete

When the Detail Information is complete:

1. Click the **Detail Plan Information Complete** checkbox. If the variance allowance has been exceeded the Work Request status will be set to "Detail Plan Complete - Pending", the request will show up in the COP's New Request Queue, and it will remain in the OM's Work Order Detailing queue after the OK button is selected. If no variance approval is required, the Work Request status will become "Detail Plan Complete" and the work order will show up in the Resource Manager's queue after the OK button is selected. If the user is authorized to check Material Complete, then they will see the **Materials Complete** checkbox becomes enabled. **(Figure 8.6)**
2. If all materials are available and accounted for, click the **Material Complete** checkbox. This will place the Work Order in the Release for Scheduling queue.

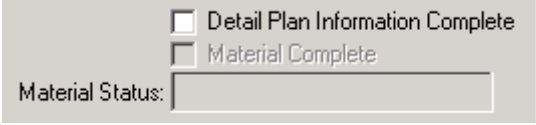


Figure 8.6 - Detail Planning Check Box

3. Click **OK** to close the screen and return to the Work Order Detailing Queue screen.

Section 9

Material Procurement

After the detail plan for a work order has been completed, the order is forwarded to the New Request Queue (RM) **(Figure 9.1)** where the Resource Manager arranges to have the materials ready to begin the work. If during the detail planning the person doing the planning decides that the material is already on hand to do the work or that is doesn't require any, he/she may mark the work order **Material Complete** if they have the appropriate authorizations.

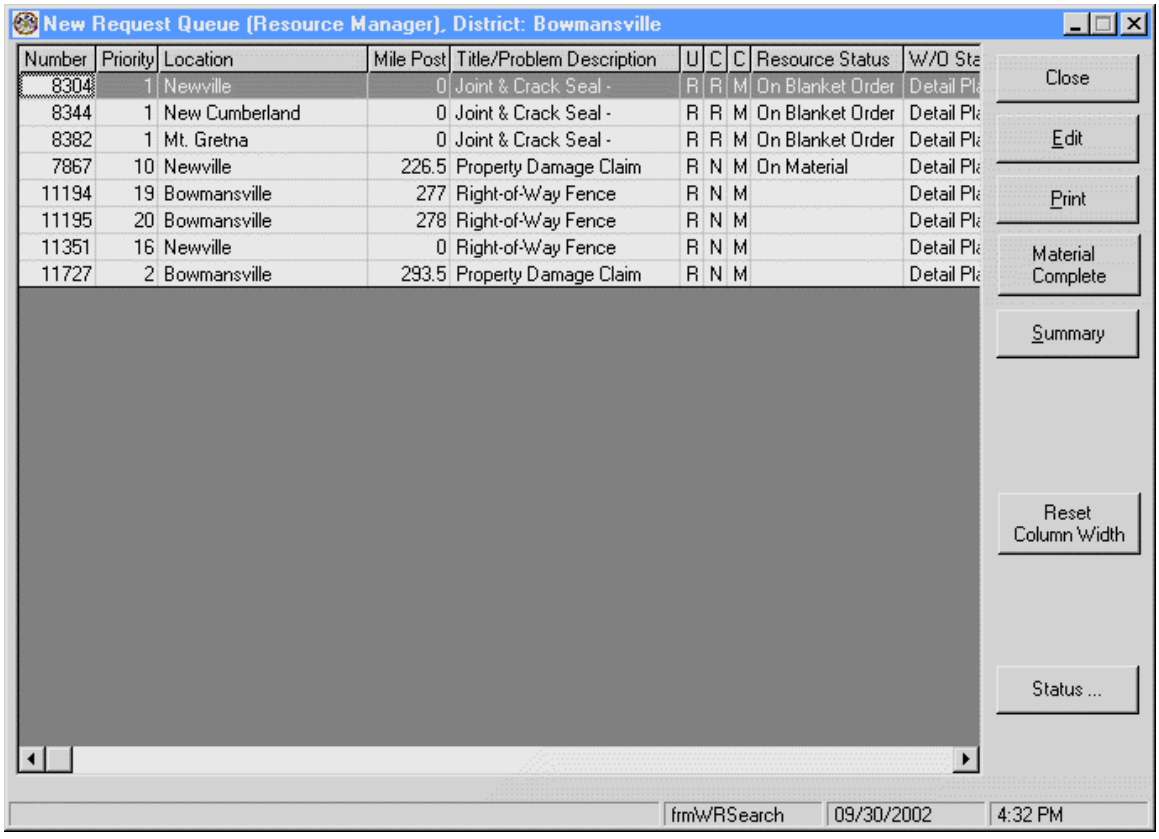

New Request Queue (Resource Manager), District: Bowmansville
Number
Priority
Location
Mile Post
Title/Problem Description
U
C
C
Resource Status
W/O Sta
8304 1 Newville 0 Joint & Crack Seal - R R M On Blanket Order Detail Pla
8344 1 New Cumberland 0 Joint & Crack Seal - R R M On Blanket Order Detail Pla
8382 1 Mt. Gretna 0 Joint & Crack Seal - R R M On Blanket Order Detail Pla
7867 10 Newville 226.5 Property Damage Claim R N M On Material Detail Pla
11194 19 Bowmansville 277 Right-of-Way Fence R N M Detail Pla
11195 20 Bowmansville 278 Right-of-Way Fence R N M Detail Pla
11351 16 Newville 0 Right-of-Way Fence R N M Detail Pla
11727 2 Bowmansville 293.5 Property Damage Claim R N M Detail Pla
Close
Edit
Print
Material Complete
Summary
Reset Column Width
Status ...
frmWRSearch
09/30/2002
4:32 PM

Figure 9.1 - New Request Queue (RM)

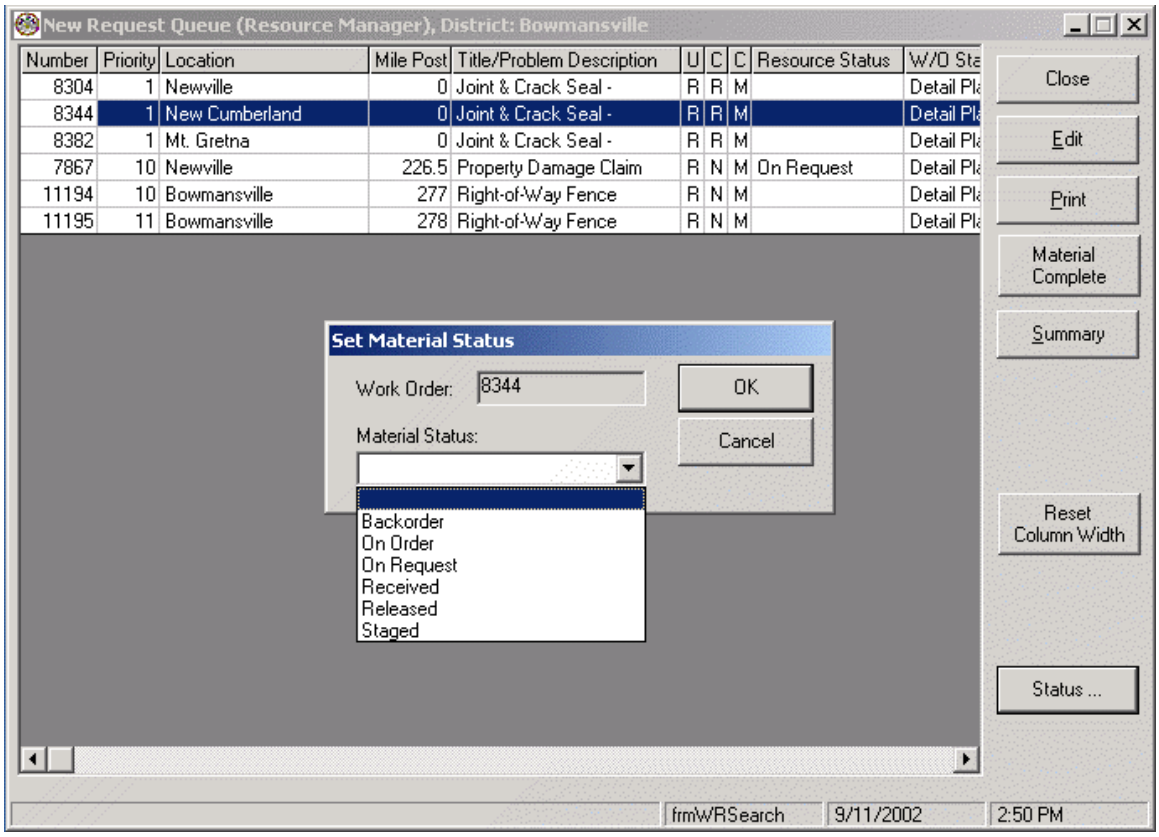


Figure 9.2 Work Order Material Status Options

When a work order appears in the Resource Managers queue, this means the order has materials which need acquired to complete the work. To review the materials, equipment and tools the resource manager can edit the order by pressing the Edit button (**Figure 9.2**). Alternately a Summary button is available to show a summary of only the material, equipment and tool information about the selected work order in the queue (**Figure 9.3**).

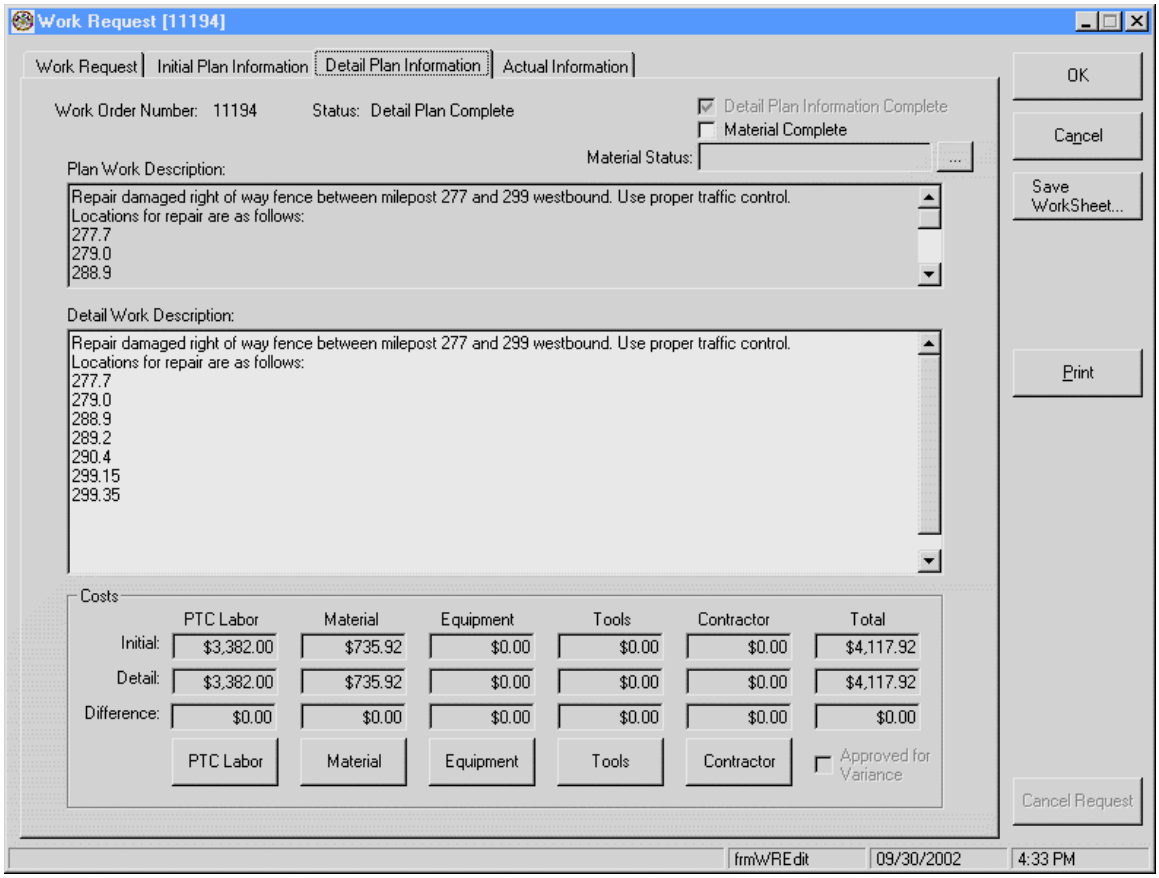


Figure 9.2 - Work Request Editing Screen

NOTE: The Resource Manager no longer needs to uncheck Detail Plan Complete (nor can they uncheck it) in order to edit the resource records. The Resource Manager can not edit the Labor resources.

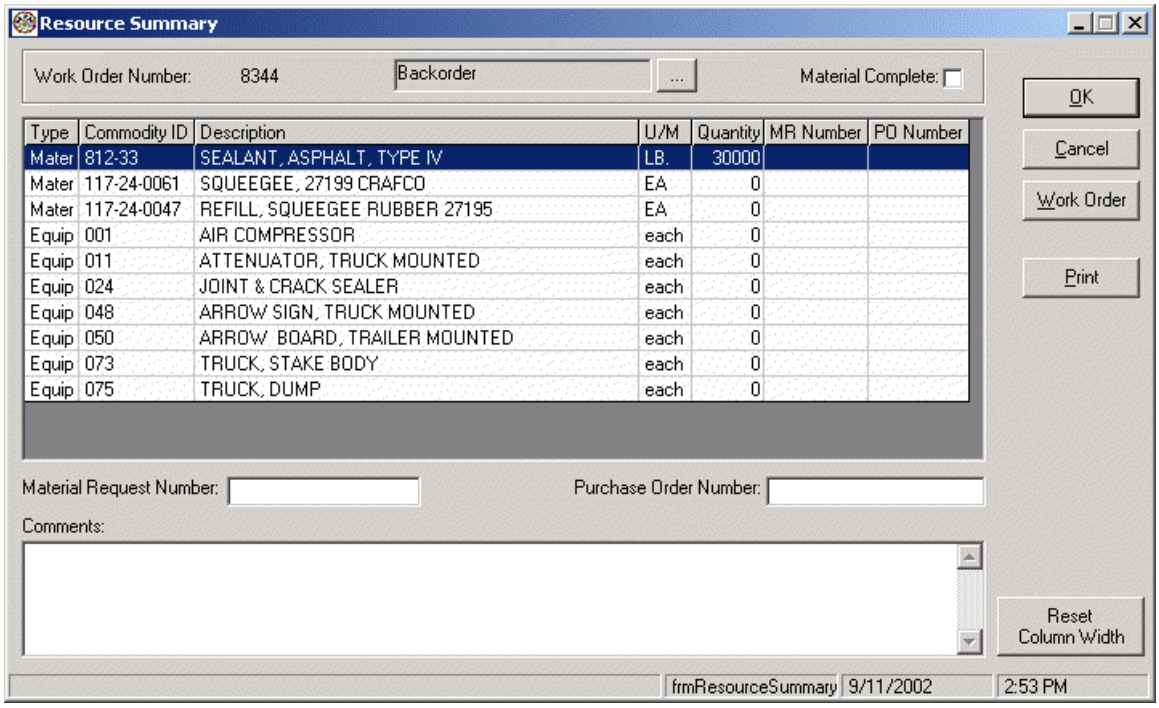

Resource Summary
Work Order Number: 8344
Backorder
Material Complete:
OK
Cancel
Work Order
Print
Type | Commodity ID | Description | U/M | Quantity | MR Number | PO Number
Mater | 812-33 | SEALANT, ASPHALT, TYPE IV | LB. | 30000
Mater | 117-24-0061 | SQUEEGEE, 27199 CRAFCO | EA | 0
Mater | 117-24-0047 | REFILL, SQUEEGEE RUBBER 27195 | EA | 0
Equip | 001 | AIR COMPRESSOR | each | 0
Equip | 011 | ATTENUATOR, TRUCK MOUNTED | each | 0
Equip | 024 | JOINT & CRACK SEALER | each | 0
Equip | 048 | ARROW SIGN, TRUCK MOUNTED | each | 0
Equip | 050 | ARROW BOARD, TRAILER MOUNTED | each | 0
Equip | 073 | TRUCK, STAKE BODY | each | 0
Equip | 075 | TRUCK, DUMP | each | 0
Material Request Number:
Purchase Order Number:
Comments:
Reset Column Width
frmResourceSummary
9/11/2002
2:53 PM

Figure 9.3 - Resource Summary

During the Resource Managers material procurement process they may assign a material status to each work order to show the status of the procurement process. To assign the material status of a work order, the Resource Manager can press the 'Status…' button, on the New Request Queue (Figure 9.1), or the '…' buttons on the work order editing detail planning tab (Figure 9.2), or the resource summary screen (Figure 9.3). This will open the Set Material Status window (Figure 9.4) for the work order.

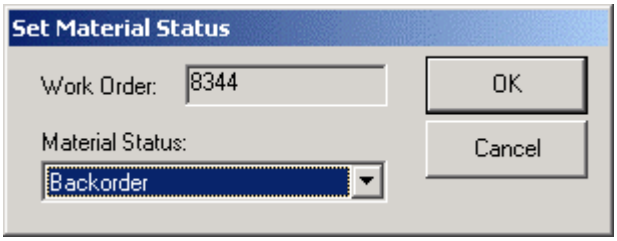


Figure 9.4 - Set Material Status Window

Material Complete

When the Resource Manager marks a work order Material Complete, from either the Detail Planning screen or Resource Summary screen, a second variance check is conducted. If the Detail Plan Total Cost variance allowance is exceeded the work order status is set to "Material Complete - Pending". The work order will show up in the COP's New Request queue and it will remain in the Resource Managers queue until the variance

is approved. When the variance is approved the status will change to Material Complete and the work order will transfer to the Release for Scheduling queue.

If a variance approval is not needed the work order status becomes Material Complete and the work order is routed to the Release for Scheduling queue.

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Section 10

Release for Scheduling

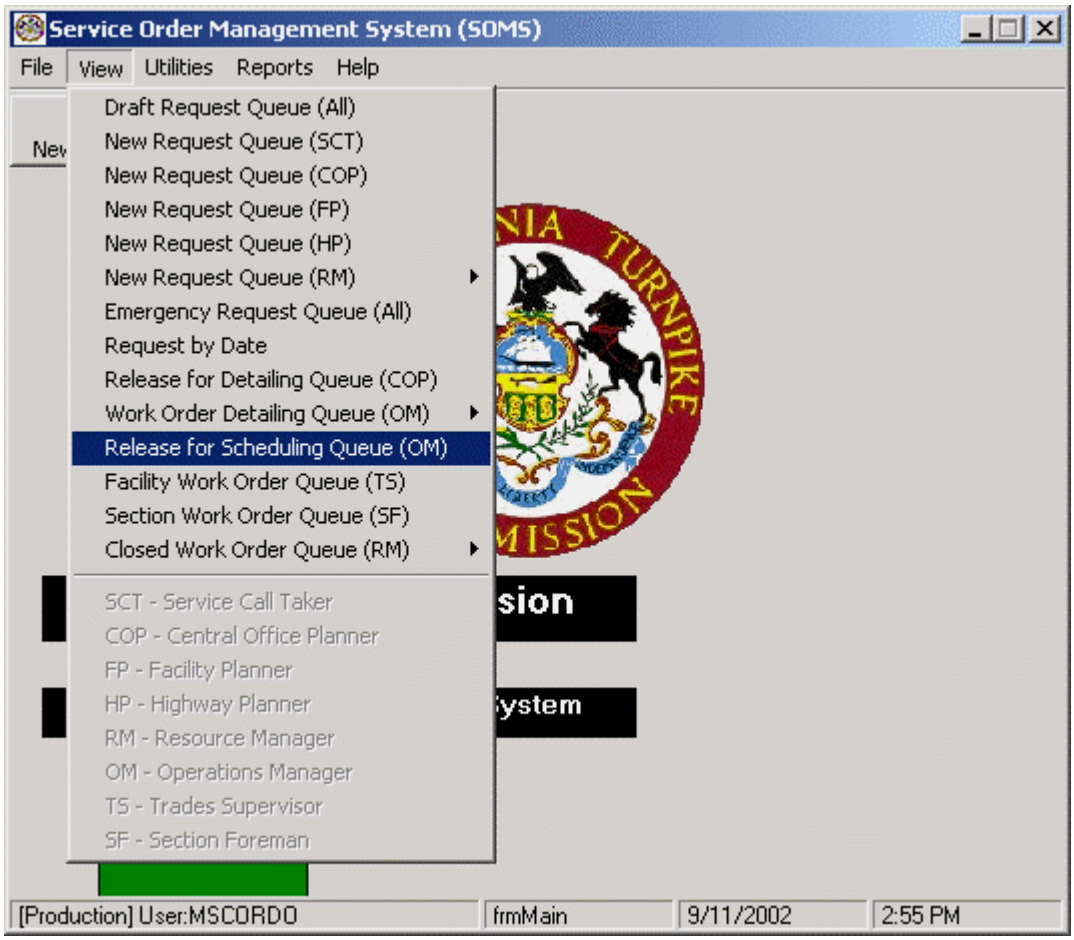


Figure 10.1 - Release for Scheduling Queue

Once the Work Order is Material Complete it is ready to be Released for Scheduling by the District Operations Manager. This is done from the Release for Scheduling Queue, opened from the **Queues** button on the Main Screen.

Highway View

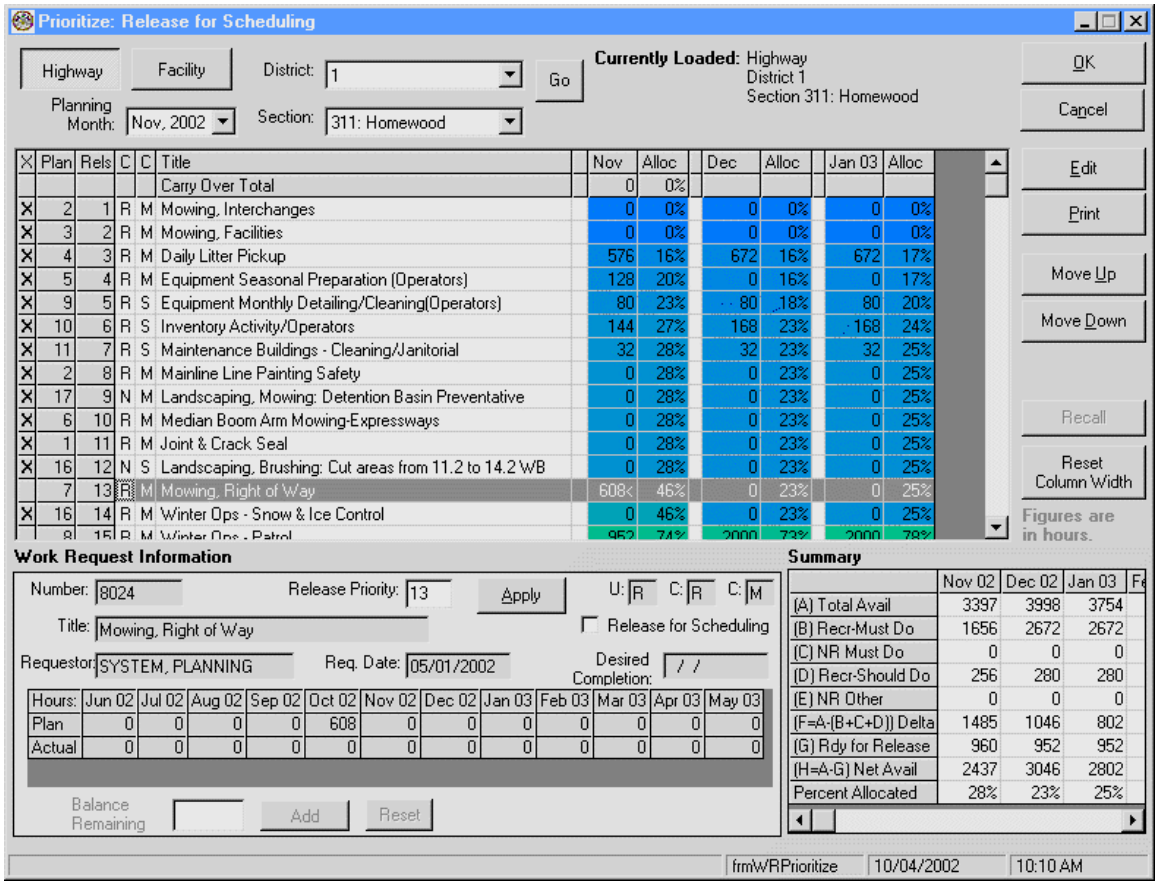


Figure 10.2 - Release for Scheduling - Highway View

Figure 10.2 depicts the Highway view of the Release for Scheduling screen.

Facility View

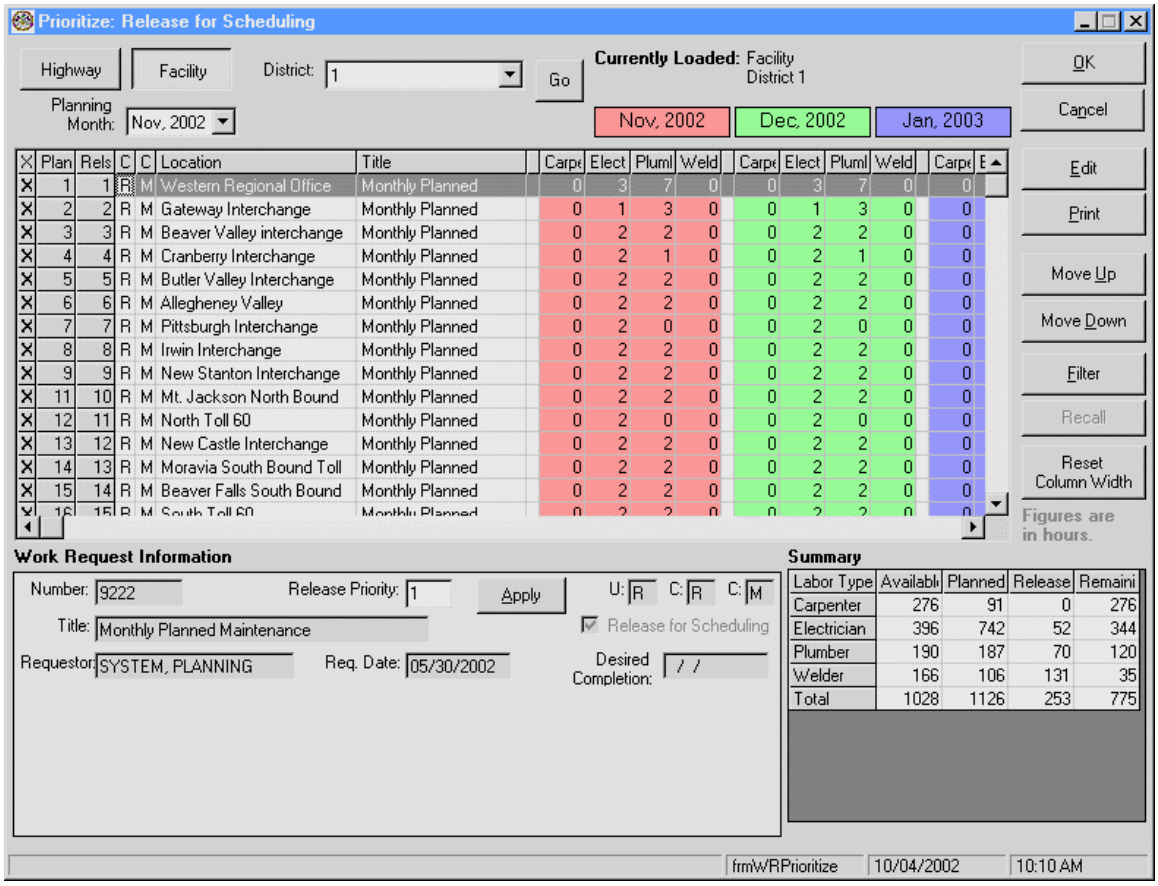


Figure 10.3 - Release for Scheduling - Facility View

Figure 10.3 depicts the Facility view of the Release for Scheduling screen.

On the Release for Scheduling screen, the District Operations Manager must select the appropriate view by clicking **Highway** or **Facility** in the upper left portion of the screen **(Figure 10.4)**, then select the location desired and verify the planning month is set correctly before pressing the **GO** button to load the data. The planning month defaults to "next month", based upon the current month of the system date. It is important to verify that the planning month is set correctly because some screen functions are only active for the default month. The last location loaded will be shown in the **Currently Loaded** information area.

The District Work Order Queue has two views, Highway and Facility. The differences will be discussed later in this section. These are the features that are available on either view:

Common Buttons

1. Select a Work Order from the Main Grid.
2. Click **OK** to save your changes and return to the Main Screen
3. Click **Cancel** to return to the Main Screen without saving your changes.
4. Click **Edit** to display the Work Request screen.
5. Click **Print** to open the Print Control Panel.
6. Click **Move Up** or **Move Down** to change the priority of the selected Work Order within the Main Grid.
7. Enter a Release Priority and click **Apply** to adjust a work order's priority.
8. Adjustable column widths in the work request list box. The column settings are remembered from session to session.
9. Click **Reset Column Width** to restore the default column widths.

Section 10a - Highway View

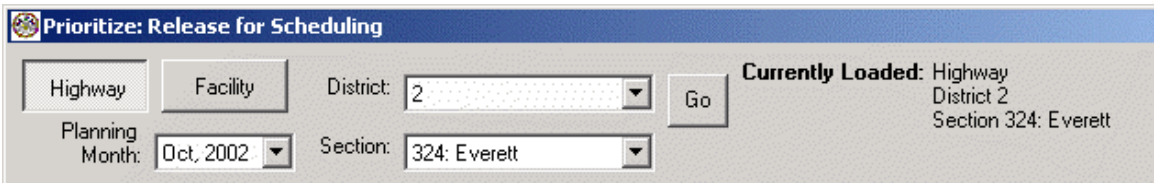


Figure 10.4 - Release for Scheduling View Selection

Selection Criteria

1. Choose the **Highway** view at the upper left of the screen.
2. Choose the **District** and **Section** from the dropdown lists at the top of the screen.
3. Select the **Planning Month**.
4. Press the **GO** button.

The Main Grid will display all Work Orders that are Material Complete for the **District** and **Section** selected, which have planned labor during the **Planning Month** selected, or within the next two months (**Figure 10.4**). Any unreleased work orders that have all their planned hours for prior months will be displayed in the list with a '<' symbol to the right of the planned hours. The hours shown as planned for these work orders are the total of all monthly hours planned for that work order, and are always displayed in the planning month column. The remaining type of work orders displayed are those that were previously released and are not yet closed. These work orders are displayed with a bold X in the first column.

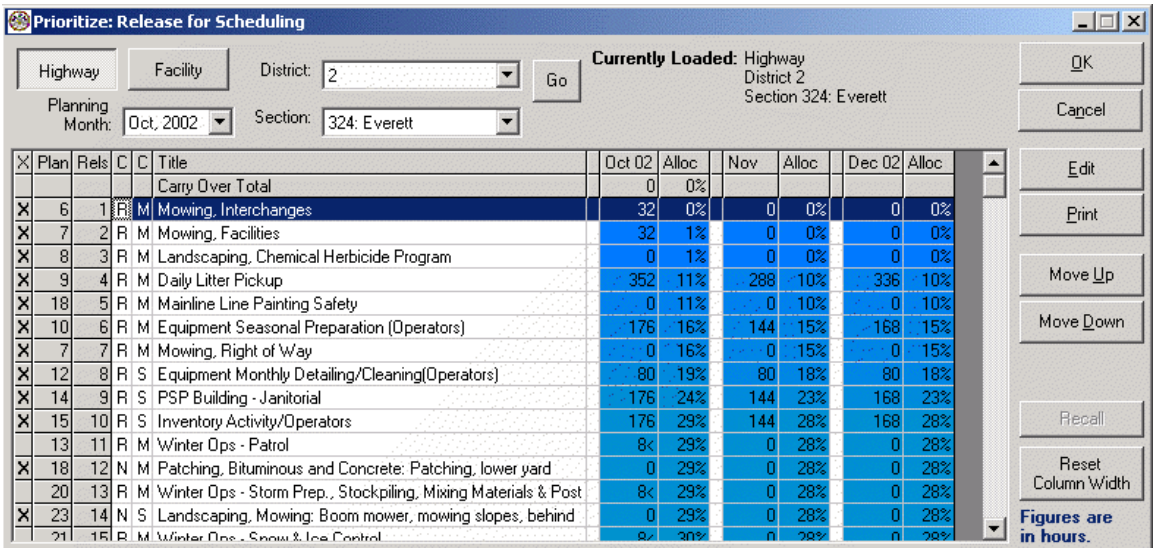

Prioritize: Release for Scheduling
Highway
Facility
District: 2
Go
Currently Loaded: Highway
District 2
Section 324: Everett
Planning Month: Oct, 2002
Section: 324: Everett
OK
Cancel
Edit
Print
Move Up
Move Down
Recall
Reset Column Width
Figures are in hours.
X | Plan | Rels | C | C | Title | Oct 02 | Alloc | Nov | Alloc | Dec 02 | Alloc
Carry Over Total 0 0%
X 6 1 R M Mowing, Interchanges 32 0% 0 0% 0 0%
X 7 2 R M Mowing, Facilities 32 1% 0 0% 0 0%
X 8 3 R M Landscaping, Chemical Herbicide Program 0 1% 0 0% 0 0%
X 9 4 R M Daily Litter Pickup 352 11% 288 10% 336 10%
X 18 5 R M Mainline Line Painting Safety 0 11% 0 10% 0 10%
X 10 6 R M Equipment Seasonal Preparation (Operators) 176 16% 144 15% 168 15%
X 7 7 R M Mowing, Right of Way 0 16% 0 15% 0 15%
X 12 8 R S Equipment Monthly Detailing/Cleaning(Operators) 80 19% 80 18% 80 18%
X 14 9 R S PSP Building - Janitorial 176 24% 144 23% 168 23%
X 15 10 R S Inventory Activity/Operators 176 29% 144 28% 168 28%
13 11 R M Winter Ops - Patrol 8< 29% 0 28% 0 28%
X 18 12 N M Patching, Bituminous and Concrete: Patching, lower yard 0 29% 0 28% 0 28%
20 13 R M Winter Ops - Storm Prep., Stockpiling, Mixing Materials & Post 8< 29% 0 28% 0 28%
X 23 14 N S Landscaping, Mowing: Boom mower, mowing slopes, behind 0 29% 0 28% 0 28%

Figure 10.5 - Main Grid: Highway View

Release for Scheduling

When the District Operations Manager is satisfied, he can release the selected Work Orders for Scheduling. Clicking the Release for Scheduling check box near the bottom of the screen, or clicking the X column at the left of the grid accomplishes this. To release multiple Work Orders quickly, the Operations Manager can click on the first Work Order to be released and while still holding in the Mouse Button, drag the pointer down across the rows to be selected, then slide the pointer to the **X** in the left-most column before releasing the button. This technique can be used to Release or Un-Release multiple Work Orders.

It is important to have released each Work Order in time for the Section Foreman to make crew labor assignments within the month for which labor was planned, as indicated at the bottom of the Release for Scheduling screen.

Edit Work Request

The **Edit** button allows the Operations Manager to easily review and edit the Detail Plan for the Work Order selected in the Main Grid.

Prioritize

Adjustments can be made to the Priority of work orders with the **Move Up** and **Move Down** buttons, or by entering the desired priority number for the selected Work Order into the **Release Priority** field at the bottom of the screen and clicking the **Apply** button.

The Main Grid

The dated columns on the right half of the main grid show the Detail Planned PTC Labor allocations for the 3 months starting with the planning month for each Highway Work Order. **(Figure 10.5)** The grid also tallies the percentage of available resources allocated for each successive Work Order. The colors will range from Blue through Green to Red to illustrate the percentage of total available resources planned. Blue indicates minimum resource utilization, while Green indicates optimum planning of about 100%. The color turns red if more than 120% of available PTC Labor is necessary to complete all listed Work Orders. Those users running in 256 color mode, or from the Citrix Server farm, will see the colors in Blue to Green and then Yellow for anything over 120% instead of red.

The Summary Grid

The Summary Grid in the lower right of the screen displays planned versus allocated labor hours. **(Figure 10.6)** The months following the selected Planning Month are included in this grid and can be viewed by using the Horizontal Scroll Bar at the bottom of the grid. An explanation of each row in the grid follows:

(A) Total Available – displays the crew hours available each month at the selected location, minus the emergency work hours estimated for the month.

(B) Recr-Must Do – displays the 'Must Do' labor hours planned from the Annual Work Plan for each month at this location.

(C) NR Must Do – displays the 'Must Do' Non-recurring work hours already planned for each month at this location.

(D) Recr-Should Do – displays the 'Should Do' labor hours planned from the Annual Work Plan for each month at this location.

(E) NR Other – displays the remaining Non-recurring labor hours already planned for each month at this location.

(F) Delta – Total Available Hours remaining after subtracting Recr-Must Do, NR Must Do, and Recr-Should Do.

(G) Rdy for Release – The total hours from each Work Request on the Main Grid that have been checked "Release for Scheduling" and any specified carryover hours.

(H) Net Available – Total Available Hours remaining after subtracting only the Work Requests that have been checked "Release for Scheduling".

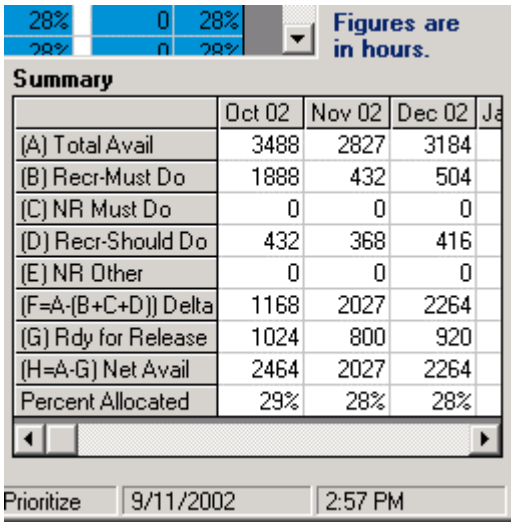


Figure 10.6 - Summary Grid: Highway View

Work Request Information

This section displays basic information for the Work Order selected in the Main Grid. **(Figure 10.7)**

A **Release for Scheduling** checkbox is available, which serves the same purpose as clicking in the X column on the main grid. Work Orders released for scheduling will appear in the **Section Work Order Queue** for Labor Assignments and Reporting. The **Section Work Order Queue** can be accessed via the Queues button on the Main Screen.

At the bottom of the Work Order Information screen is displayed the hours planned for the selected Work Order for 12 months and any actual hours that have been logged to the Work Order. The Balance Remaining is calculated as the sum of planned hours through the current month minus the sum of reported hours.

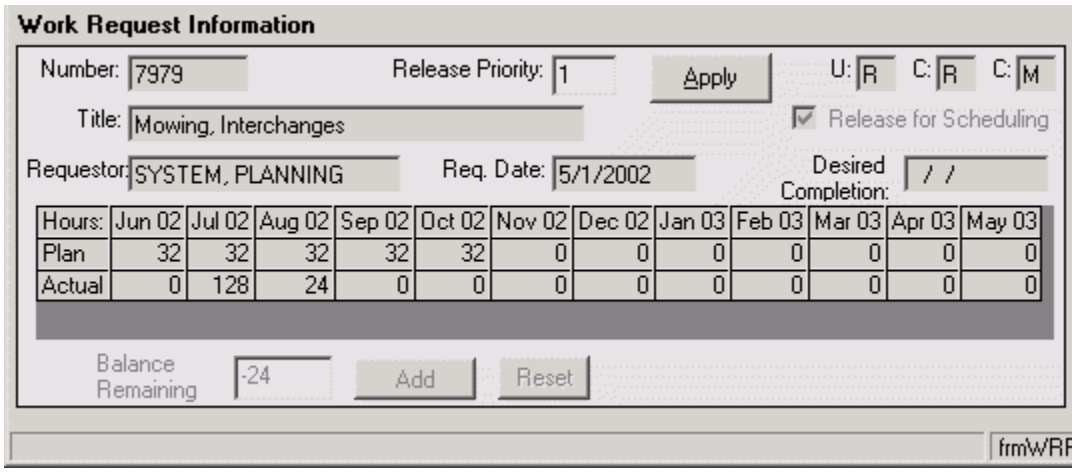

Work Request Information
Number: 7979
Release Priority: 1
Apply
U: R C: R C: M
Title: Mowing, Interchanges
Release for Scheduling
Requestor: SYSTEM, PLANNING
Req. Date: 5/1/2002
Desired Completion: / /
Hours: Jun 02 Jul 02 Aug 02 Sep 02 Oct 02 Nov 02 Dec 02 Jan 03 Feb 03 Mar 03 Apr 03 May 03
Plan 32 32 32 32 32 0 0 0 0 0 0 0
Actual 0 128 24 0 0 0 0 0 0 0 0 0
Balance Remaining
-24
Add
Reset
frmWRF

Figure 10.7 - Work Request Information (Highway)

Balancing the Carry Over

Balancing the Carry Over provides the OM with a method of allocating planning month hours to work orders origninally planned for prior months. Through communication with the Section Foremen the OM will be advised of work orders that still have work remaining but will not be accomplished in the current month. In this case the OM can allocated the computed Balance Remaining or manually enter some other value in the Balance Remaining field and then click the **ADD** button to add this value to the Carry Over Total. Note: The carry over balance must be positive to be added.

The Carry Over Total for the Section, is listed in the first row of Main Grid **(Figure 10.5). A**ny carry over that was saved in a previous session will show on this line for the default planning month only, when the form is loaded. It shows the hours that have been added and the Allocation percentage these hours will expend. Only carry over hours for the current default planning month are saved.

Carry Over is only available for work orders that have been Released for Scheduling (sent to the Foreman's queue). Past due work orders (200<) must have their hours rescheduled by editing the detail plan labor records in order to be released and these records are not eligible for the Carry Over function. When a work order has Carry Over hours assigned, a + sign will appear in the column just to the right of the Title column.

The Total Carry Over amount is added to "(G) Rdy for Release", in the Summary section.

Recall

The Recall function provides a means to remove a work order from the Section queue if it meets certain criteria. An example would be a work order theawas not accomplished and due to a change in seasons, it would not be applicable for many months. In this case the Operations Manager may want to "Recall" the work order in order to reschedule the labor hours to some future month. The restriction s to recalling a work order are:

It must not be in an Assigned status

It must not have ever had any reported action against it

It must not be in a Completed or Closed status

To recall an eligible work order, select the work order in the list, observe that the Recall button becomes enabled and Click the Recall button.

Recalled work orders have their status reset to "Released for Detailing" and are returned to the district's Work Order Detailing Queue in order to have the labor hours rescheduled to some future month.

Section 10b – Facility View

Using the District Work Order Screen for Facility

The Facility view of the District Work Order Queue screen can be displayed by clicking on the **Facility** button at the upper left of the screen. **(Figure 10.8)**

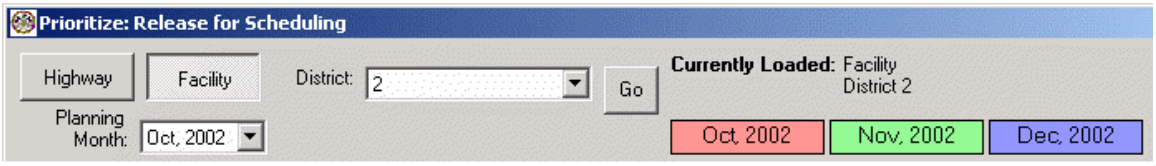
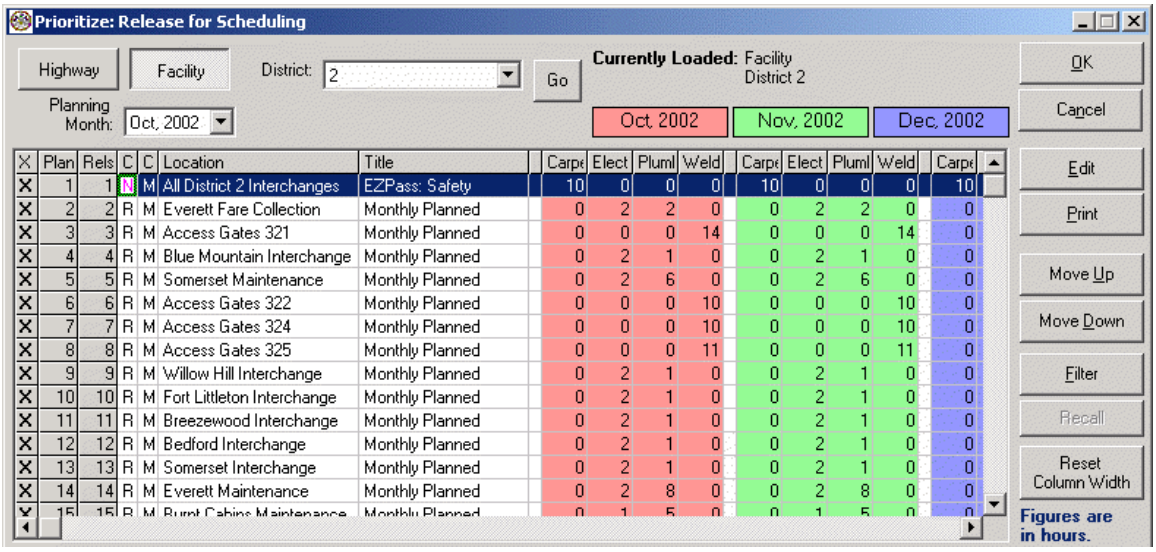


Figure 10.8 - Release for Scheduling View Selection

Selection Criteria

1. Choose the **Facility** view at the upper left of the screen.
2. Choose the **District** from the dropdown lists at the top of the screen.
3. Select the **Planning Month**.
4. Press the **GO** button.

The Main Grid will display all Work Orders that are Detail and Material Complete for the selected **District**, which have planned labor during the selected **Planning Month** or one of the following two months. **(Figure 10.9)**



X	Plan	Rels	C	C	Location	Title	Carpe	Elect	Pluml	Weld	Carpe	Elect	Pluml	Weld	Carpe
X	1	1	N	M	All District 2 Interchanges	EZPass: Safety	10	0	0	0	10	0	0	0	10
X	2	2	R	M	Everett Fare Collection	Monthly Planned	0	2	2	0	0	2	2	0	0
X	3	3	R	M	Access Gates 321	Monthly Planned	0	0	0	14	0	0	0	14	0
X	4	4	R	M	Blue Mountain Interchange	Monthly Planned	0	2	1	0	0	2	1	0	0
X	5	5	R	M	Somerset Maintenance	Monthly Planned	0	2	6	0	0	2	6	0	0
X	6	6	R	M	Access Gates 322	Monthly Planned	0	0	0	10	0	0	0	10	0
X	7	7	R	M	Access Gates 324	Monthly Planned	0	0	0	10	0	0	0	10	0
X	8	8	R	M	Access Gates 325	Monthly Planned	0	0	0	11	0	0	0	11	0
X	9	9	R	M	Willow Hill Interchange	Monthly Planned	0	2	1	0	0	2	1	0	0
X	10	10	R	M	Fort Littleton Interchange	Monthly Planned	0	2	1	0	0	2	1	0	0
X	11	11	R	M	Breezewood Interchange	Monthly Planned	0	2	1	0	0	2	1	0	0
X	12	12	R	M	Bedford Interchange	Monthly Planned	0	2	1	0	0	2	1	0	0
X	13	13	R	M	Somerset Interchange	Monthly Planned	0	2	1	0	0	2	1	0	0
X	14	14	R	M	Everett Maintenance	Monthly Planned	0	2	8	0	0	2	8	0	0
X	15	15	R	M	Burnt Cabins Maintenance	Monthly Planned	0	1	5	0	0	1	5	0	0

10.9 - Release for Scheduling Main Grid: Facility

Release for Scheduling

When the District Operations Manager is satisfied, he can release the selected Work Orders for Scheduling. Clicking the Release for Scheduling check box near the bottom of the screen, or clicking the X column at the left of the grid accomplishes this. To release multiple Work Orders quickly, the Planner can click on the first Work Order to be released and while still holding in the Mouse Button, drag the pointer down across the rows to be selected, then slide the pointer to the **X** in the left-most column before releasing the button. This technique can be used to Release or Un-Release multiple Work Orders.

It is important to have released each Work Order in time for the Trade Supervisor to make labor assignments within the month for which labor was planned.

Edit Work Request

The **Edit** button allows the planner to easily review and edit the Detail Plan for the Work Order selected in the Main Grid.

Prioritize

Adjustments can be made to the Priority of work orders with the **Move Up** and **Move Down** buttons, or by entering the desired priority number for the selected Work Order into the **Release Priority** field at the bottom of the screen and clicking the **Apply** button.

The Main Grid

The Main Grid shows all Work Orders planned for the selected month or any of the 2 following months. The right side of the grid lists the planned labor allocations for each type of labor for the 3 months. Use the horizontal scroll bar at the bottom of the grid to view all of the details.

The Summary Grid

The Summary Grid in the lower right of the screen displays planned versus available labor hours for each labor type for the selected month. **(Figure 10.10)**

There are five columns:

1. The **Labor Type** column lists each of the possible labor types.
2. The **Available** column indicates the Facility's total monthly available labor hours for each given labor type, minus a predetermined percentage to cover Emergency work orders.
3. The **Planned** column shows the hours allocated in the Detail Plan for each Labor Type that month.
4. The **Release** column gives the total hours for only the Work Orders Released for Scheduling in the Main Grid.

5. The **Remaining** column shows the remaining available hours after the Released hours have been subtracted.

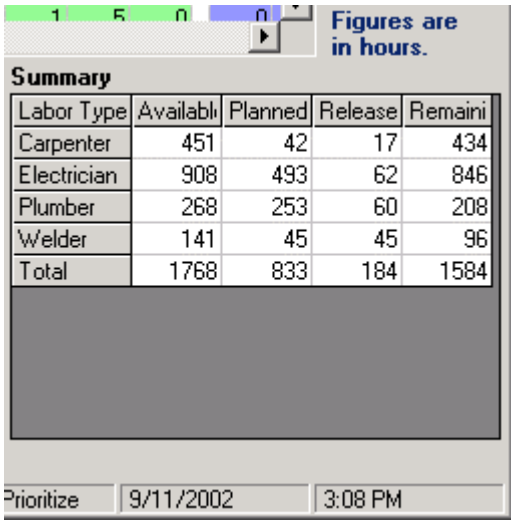


Figure 10.10 - Labor Summary: Facility

Work Order Information

This section displays basic information for the Work Order selected in the Main Grid. **(Figure 10.11)**

A **Release for Scheduling** checkbox is available, which serves the same purpose as clicking in the X column on the main grid. Work Requests released for scheduling will appear in the **Facility Work Order Queue** for Detail Planning, which can be accessed via the Queues button on the Main Screen.

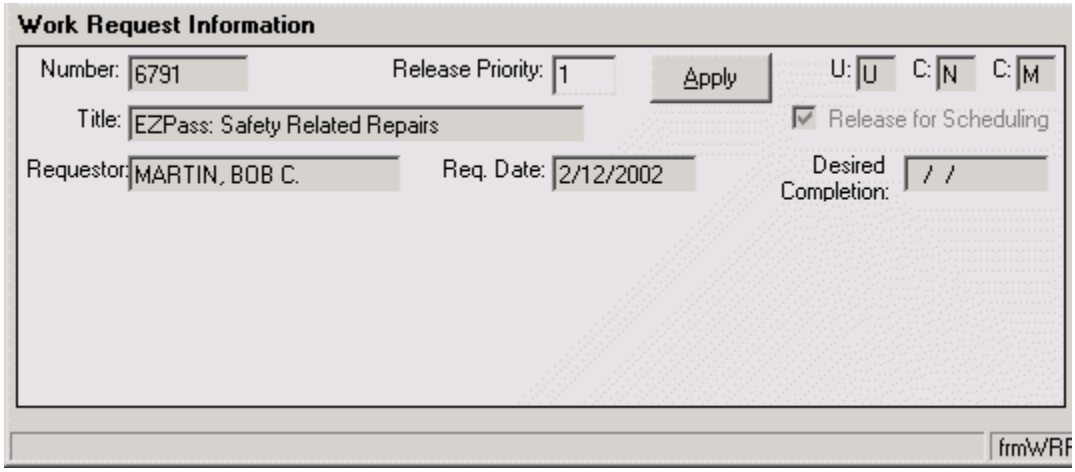
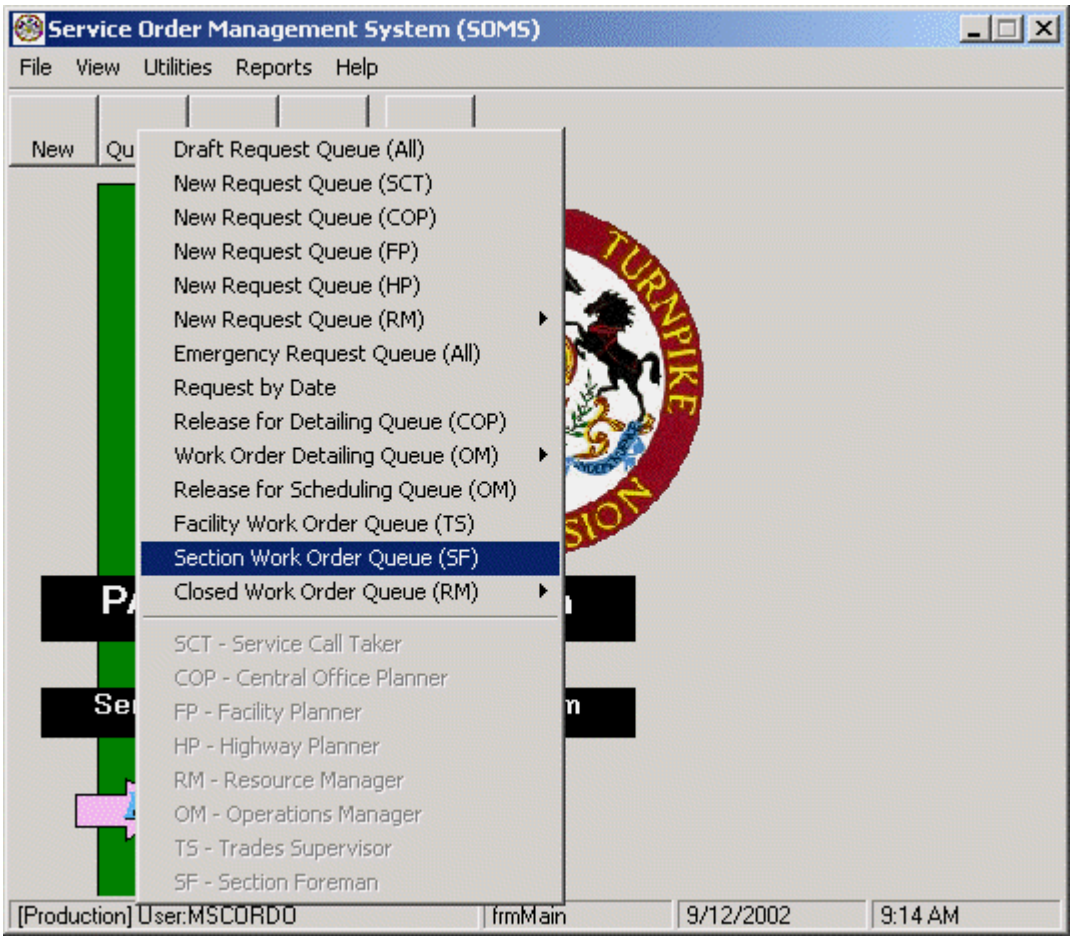


Figure 10.11 - Release for Scheduling: Work Order Information

Section 11

Section Work Order Queue



The Section Work Order Queue is opened from the Main Screen **Queues** button. It is used by the Highway Section Foreman to display all Work Orders Released for Scheduling (including Urgent and Emergency requests) at his location. The information supplied on this screen assists the Foreman to track and report actual usage of materials, PTC Labor, Equipment, and Tools.

The Main Grid

The main grid at the top of the form displays all open work orders released for scheduling to this section. **(Figure 11.1)** Administrators using this screen can view other locations by selecting them from the drop-down District and Section fields at the top of the screen.

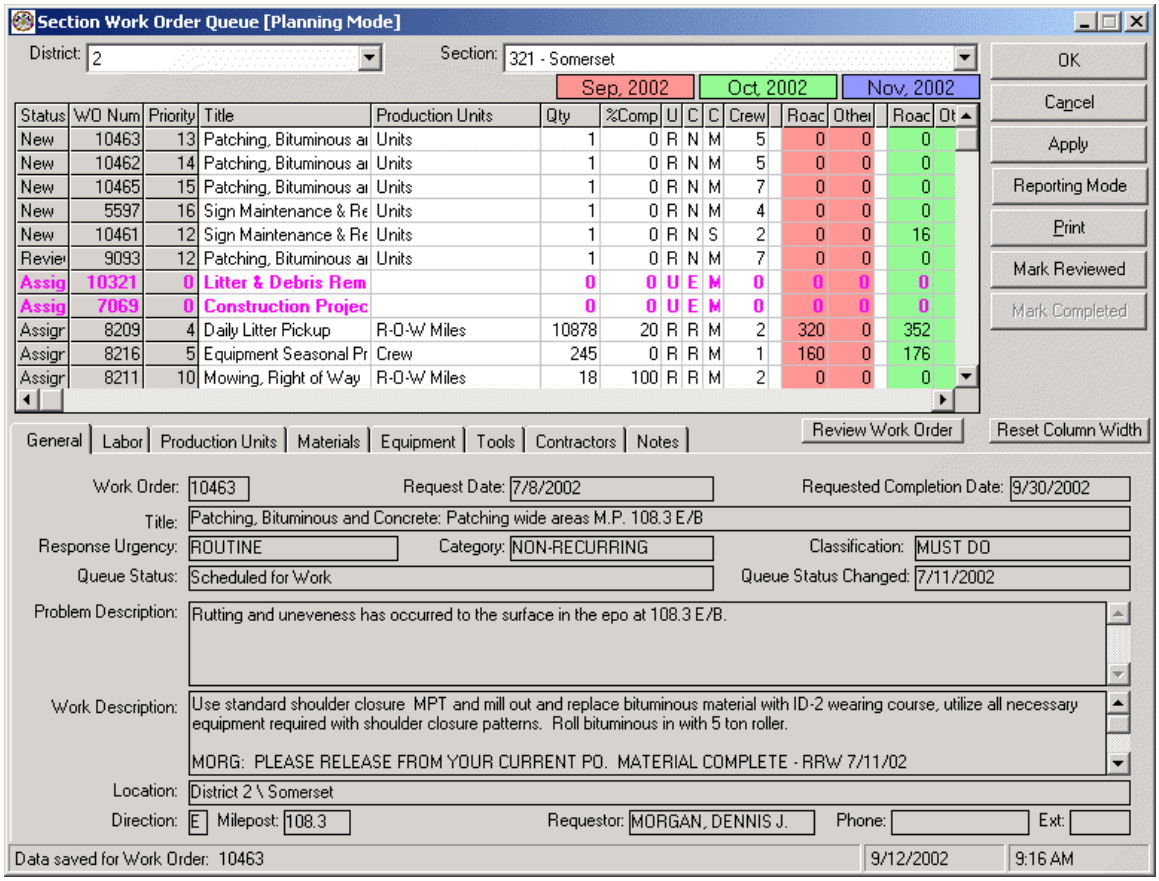


Figure 11.1 - Section Work Order Queue

Work Orders with an Urgency Classification of Emergency will appear in red. Urgent work orders will appear in magenta. Routine Work Orders will be listed in plain black text. Emergencies appear first in the grid, followed by Urgent Work Orders. The remaining Work Orders appear in order of priority as established by the Central Office Planner or District Operations Manager.

Clicking on any column header in the main grid will resort the grid by that column. The first sort will be in ascending order, a second click will resort the list in descending order by that column's values. The sort order can be returned to the original order by clicking on the button that appears below the District field.

Button Controls

The buttons to the right of the Main Grid perform a variety of functions. Some of the buttons will be disabled if their function is not applicable to the selected Work Order or the user's role does not permit certain actions.

1. **OK** Button – Saves changes made to this screen, then closes the screen.
2. **Cancel** Button – Closes the screen without saving changes.
3. **Apply** Button – Saves changes and refreshes the screen.
4. **Reporting/Planning Mode** Button – Changes screen mode to the mode indicated on the button face prior to being clicked. **(Figure 11.1)** The screen's current mode is always indicated in the Title Bar at the top of the Screen.

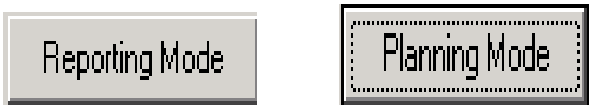


Figure 11.2 - Changing Screen Modes

When in **Planning Mode**, the tabs at the bottom of the screen are used for planning crew assignments.
When in **Reporting Mode**, the tabs are used for reporting actual resource usage.

5. **Print** Button – Opens the Print Control Panel, described in detail later within this section.
6. **Mark Reviewed** Button – This is used by the Section Foreman to mark a Work Request that has been reviewed but not yet assigned. This can help him to easily identify when new Emergency and Urgent orders appear in the Queue, for these need to be addressed quickly.
7. **Mark Completed** Button – Used by the Section Foreman to indicate when work has been completed on an Order, but still needs to be reported on.
8. **Close Work Order** Button – This button is hidden except when in Reporting Mode. It opens the Close Work Order screen. **(Figure 11.3)** It is only available for Work Orders marked Completed.
9. **Review Work Order** Button **-** This button is available in both the Planning and Reporting Modes. It opens a four panel screen depicting the entire life of the work order, from Work Request, Initial Planning, Detail Planning, to Actual Work reported.

10. **Reset Column Width** Button - This button will resize all of the grid columns to their default size. Column widths are user adjustable and the width settings are "remembered" for each user between sessions.

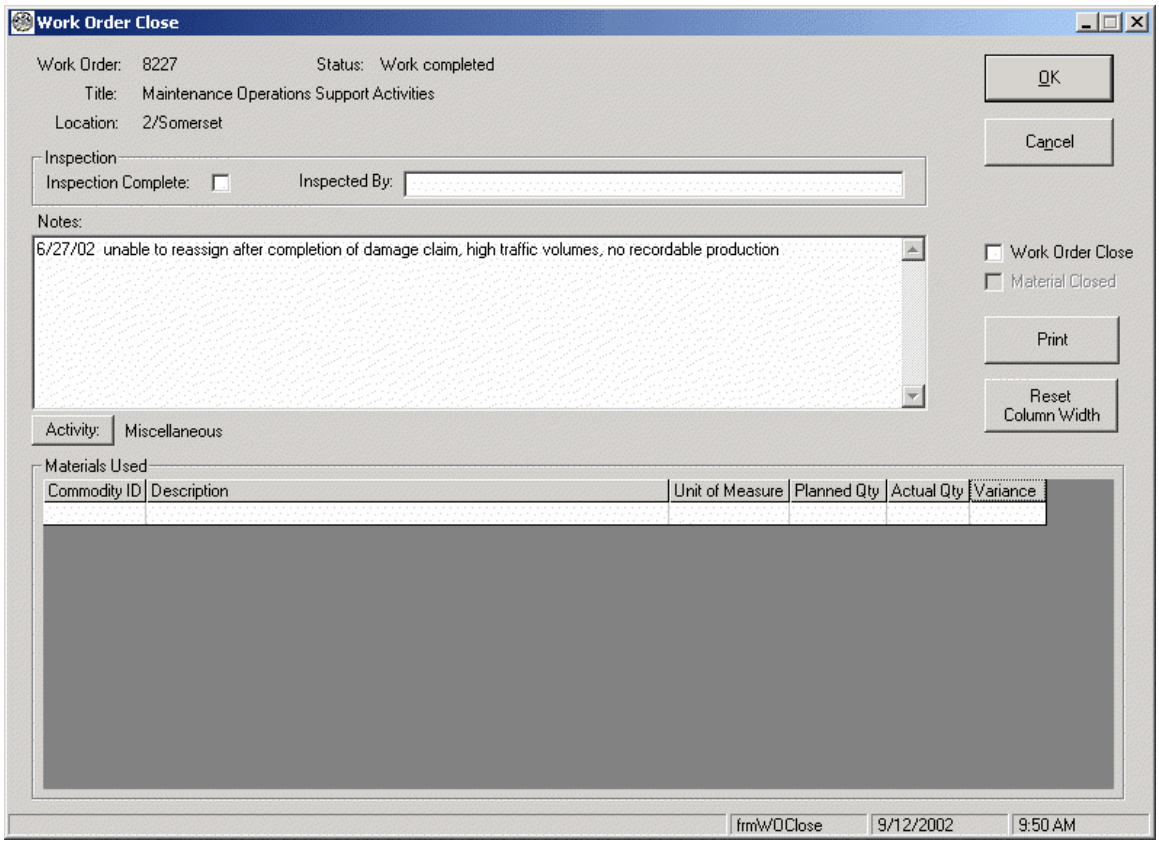


Figure 11.3 - Work Order Close

Using the Work Order Close Screen

The Work Order Close screen lists all materials planned and used for the specified Work Order. It was designed to assist in determining if a Work Order can be marked Material Closed. Several features are available to meet this objective:

1. The Inspection section **(Figure 11.4)**
2. The Materials Used section allows the user to compare planned resources to actual usage.
3. The View Work Order Button generates a detailed report on the current Work Order.
4. The Work Order Closed and Material Closed check boxes **(Figure 11.5) Note:** Only certain roles will see the Material Closed option.

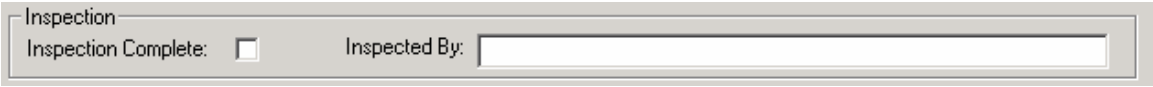


Figure 11.4 - Inspection Section

Figure 11.5 - Closed Buttons

Planning Mode

When in Planning Mode, the tabs at the bottom of the form are used to plan daily labor assignments.

1. General Tab **(Figure 11.6)**
   This Tab displays general information about the Work Order selected in the Main Grid.

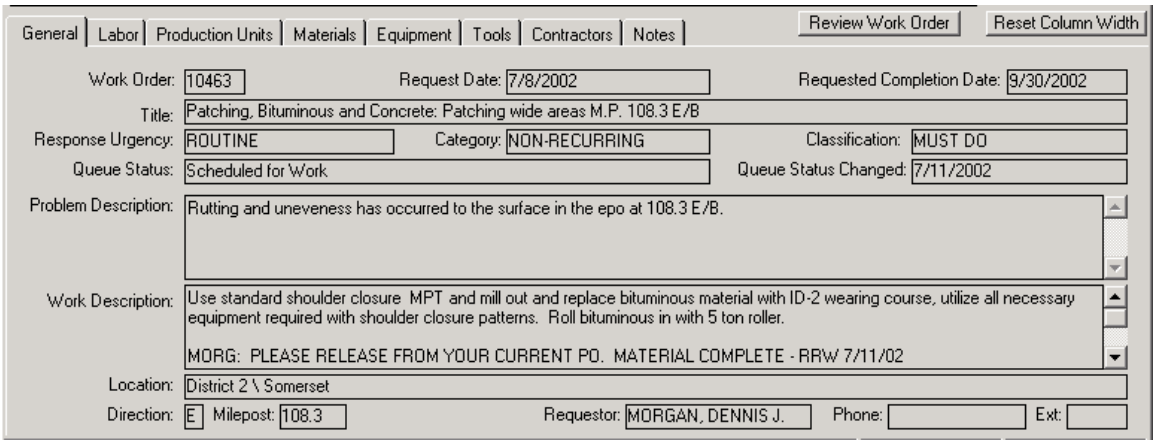

General
Labor
Production Units
Materials
Equipment
Tools
Contractors
Notes
Review Work Order
Reset Column Width
Work Order: 10463
Request Date: 7/8/2002
Requested Completion Date: 9/30/2002
Title: Patching, Bituminous and Concrete: Patching wide areas M.P. 108.3 E/B
Response Urgency: ROUTINE
Category: NON-RECURRING
Classification: MUST DO
Queue Status: Scheduled for Work
Queue Status Changed: 7/11/2002
Problem Description: Rutting and uneveness has occurred to the surface in the epo at 108.3 E/B.
Work Description: Use standard shoulder closure MPT and mill out and replace bituminous material with ID-2 wearing course, utilize all necessary equipment required with shoulder closure patterns. Roll bituminous in with 5 ton roller.
MORG: PLEASE RELEASE FROM YOUR CURRENT PO. MATERIAL COMPLETE - RRW 7/11/02
Location: District 2 \ Somerset
Direction: E
Milepost: 108.3
Requestor: MORGAN, DENNIS J.
Phone:
Ext:

Figure 11.6 - General Planning Tab

2. Labor Tab **(Figure 11.7)**
   This Tab is used to plan Labor Assignments for the selected Work Order. There are three sections to this tab:
   - **a.** People
     This grid has 3 rows.
     - The first row displays the available Labor Types for the selected Work Order (Roadcrew, Other).

- The second row shows the number of each labor type normally assigned to this maintenance activity, known as the Section Crew Size.
- The third row is used by the Foreman to enter the number of workers being assigned to this activity this day. As numbers are entered into these cells, the Daily Personnel matrix to the right of the screen keeps a running tally of crew assigned versus crew available. Clicking the **Assign** button will commit these entries, and the Foreman can select another Work Order for additional labor assignments.

b. Daily Personnel
Presents a running total of all labor assigned so far this day. The Section Foreman should enter the total number of workers available for the day in the **Crew Available** field. As workers are assigned to various work orders the **Crew Assigned** value will increment up, for a visual comparison to the **Crew Available**.

c. Daily Work Instruction

This field is for listing any specific instructions for the crew leader for this work order. The instructions will print out on the daily reporting form. Whatever is entered in this field is saved and can be edited, deleted, or re-used the next day.

d. Labor Accumulation
There is two sections to the Labor Accumulation Grid.

The **First Section** compares planned labor assignments to the Actual usage, entered in Reporting Mode, to date for the current month.

- Labor Type – Lists each of the possible labor types.
- Plan – Lists for each labor type the total hours planned so far this month.
- Actual – Lists for each labor type the total Actual hours entered in reporting mode for this month.
- Variance – Lists for each labor type the difference between Planned and Actual labor hours used for this month.

The **Second Section** lists, for each labor type, the total hours planned for this month and the next consecutive 11 months.

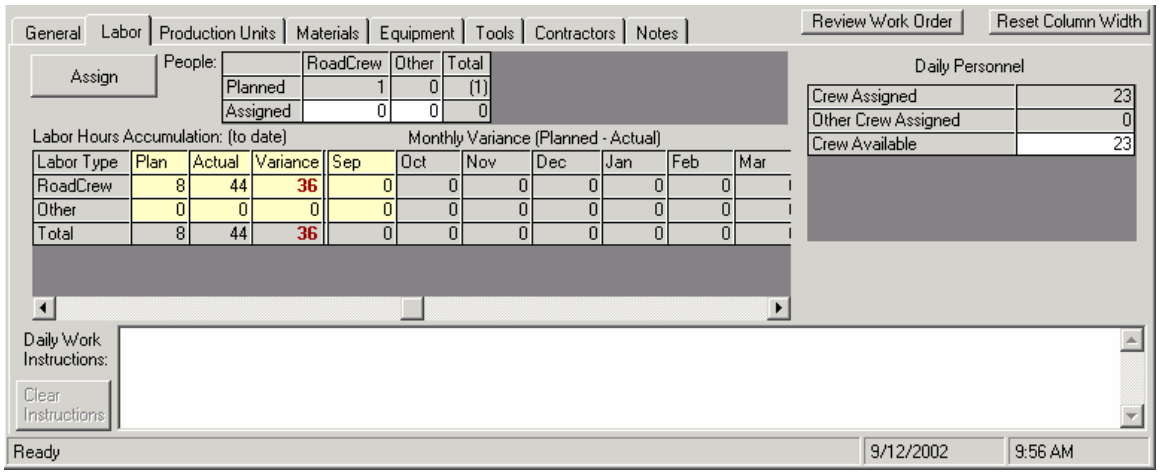


Figure 11.7 - Labor Planning Tab

3. Materials Tab **(Figure 11.8)**
   This tab displays each Material items planned for the current Work Order.

   New, **Edit**, and **Delete** buttons are available for maintaining any **Unplanned** resources. An Unplanned resource can be deleted only if it has not had any actual usage reported against it.

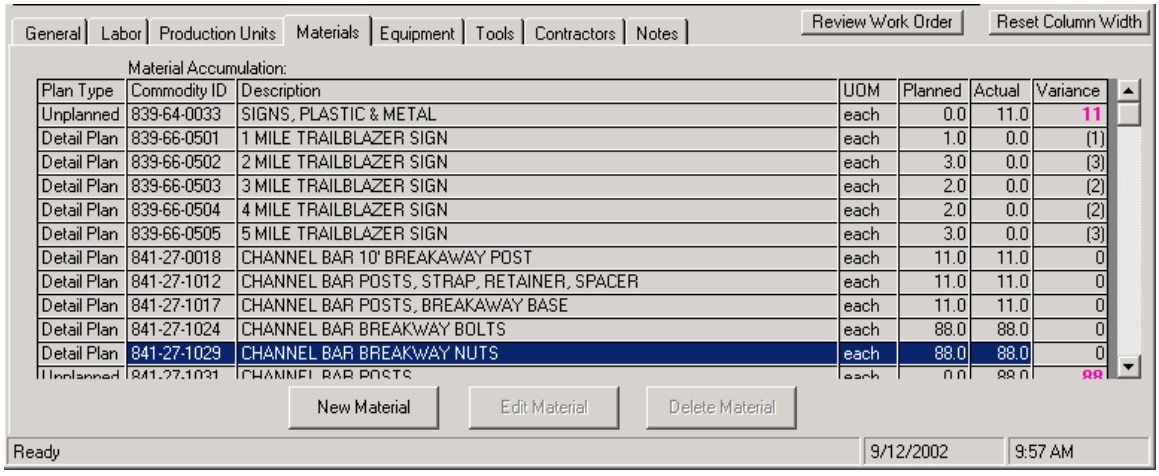


Figure 11.8 - Materials Planning Tab

4. Equipment Tab **(Figure 11.9)**
   This tab displays each Equipment item planned for the current Work Order.

   New, **Edit**, and **Delete** buttons are available for maintaining any **Unplanned** resources. An Unplanned resource can be deleted only if it has not had any actual usage reported against it.

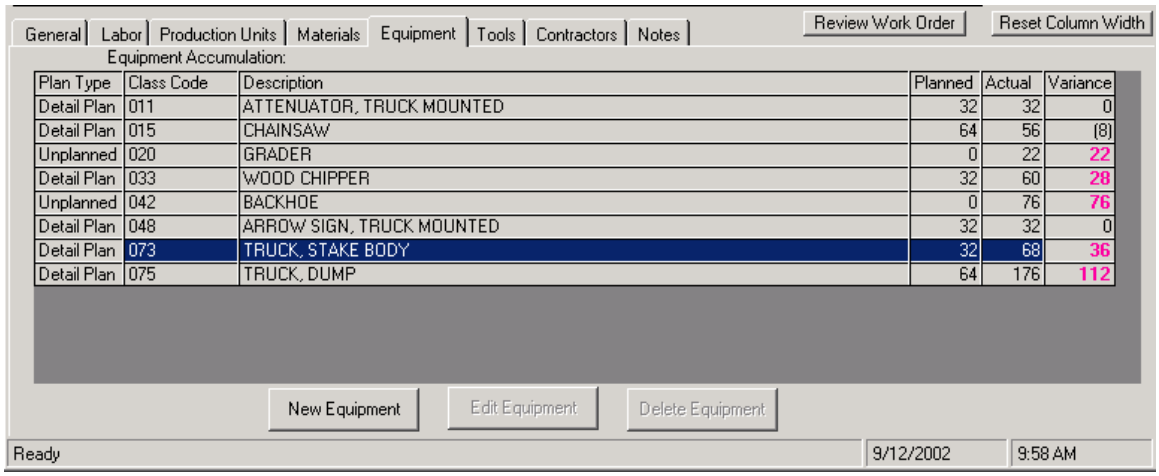


Figure 11.9 - Equipment Planning Tab

5. Tools Tab **(Figure 11.10)**
   This tab displays each Tool planned for the current Work Order.

   New, **Edit**, and **Delete** buttons are available for maintaining any **Unplanned** resources. An Unplanned resource can be deleted only if it has not had any actual usage reported against it.

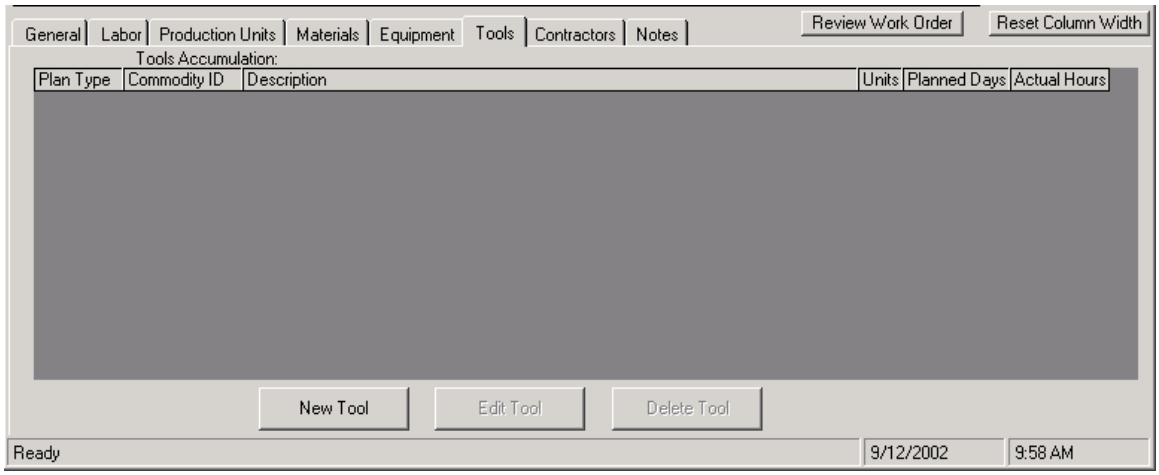


Figure 11.10 - Tools Planning Tab

6. Contractors Tab **(Figure 11.11)**
   This tab shows each Contractor planned for the current Work Order.

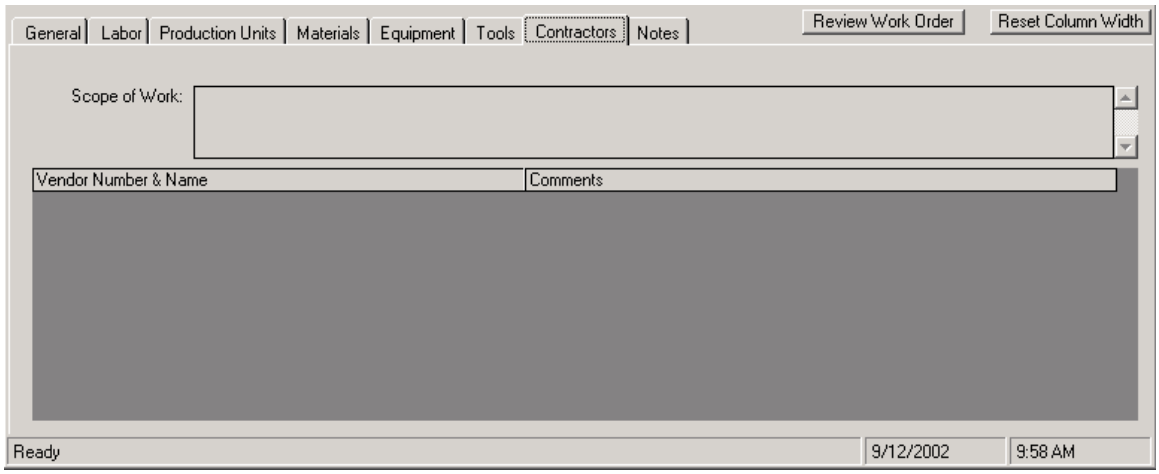


Figure 11.11 - Contractor Planning Tab

7. Notes Tab
   This tab displays any notes on the Work Order that may have been entered during reporting.
8. Production Units **(Figure 11.12)**
   If production units are associated with this Work Request, a Production Units tab will be available on this screen to display the current status of completed units. This tab shows Planned versus Completed units for both the Current Month, and the Total Work Order. A progress bar is also included to graphically display the Work Order progress.

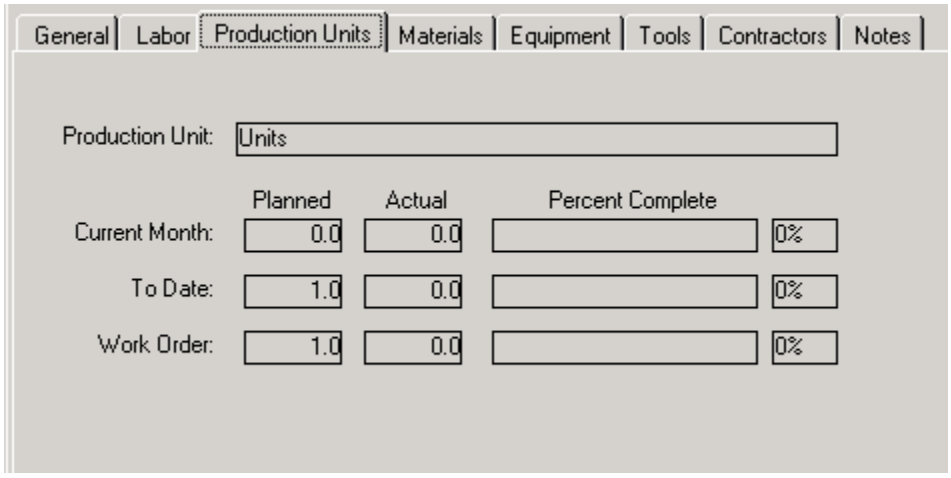


Figure 11.12 - Production Units Reporting Tab

Print Control Panel

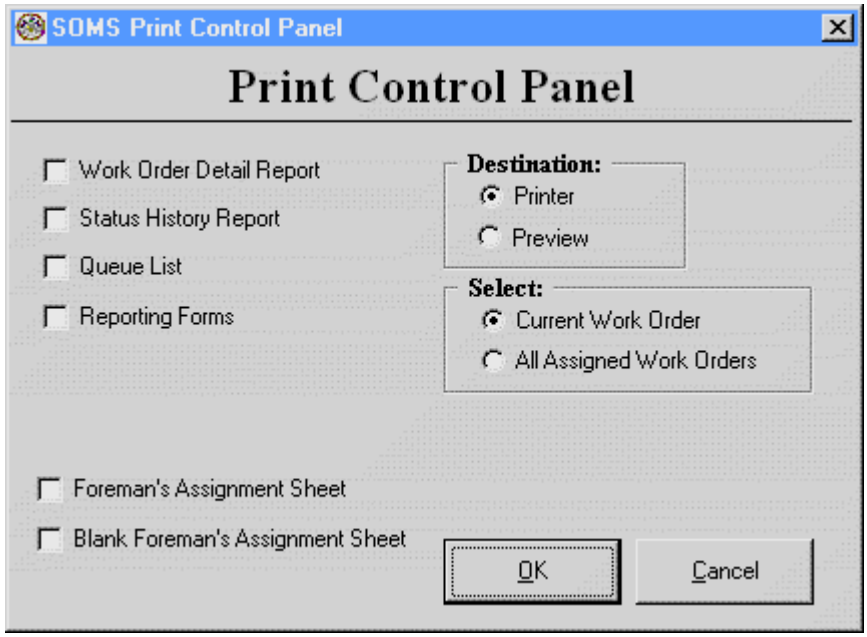


Figure 11.13 - Section Print Control Panel

The Section Queue Print Control Panel (**Figure 11.13)** contains some unique selections along with the standard options.

1. Destination - Select Printer to send the output to the printer or select Preview to open a print preview window, in order to review the output prior to printing.
2. Select - Determines how to apply the chosen report choices, to the Currently Selected Work Order or to All Work Orders with a Status of Assigned. This option does not apply to the History Report or Queue List.
3. Work Order Detail Report - prints a detailed report of all planning and actual usage for the work order to date. If Select is set to All Assigned Work Orders, a WODR will print for each work order in the queue with a status of Assigned. (Not Recommended)
4. Status History Report - provides a chronological listing of status changes to the work order and by whom.
5. Queue Listing -Prints a list of all the work orders in the section queue. Is not affected by the Select box choice.
6. Reporting Forms - A customized reporting form for each work order. It contains the Daily Work Instructions and lists of all the planned resources, providing a convenient form for recording actual usage and labor hours. If Select is set to All Assigned Work

Orders, a Reporting form will print for each work order in the queue with a status of Assigned.

7. Foreman's Assignment Sheet - This is a special form created by exporting Assigned Work Order data to a pre-formatted Excel spreadsheet. When selected a special date field must be filled in (**Figure 11.14**). When created the spreadsheet must be saved and the date is used to create a unique filename for the spreadsheet. The Foreman's Assignment Sheet can be edited within Excel prior to printing (from Excel).

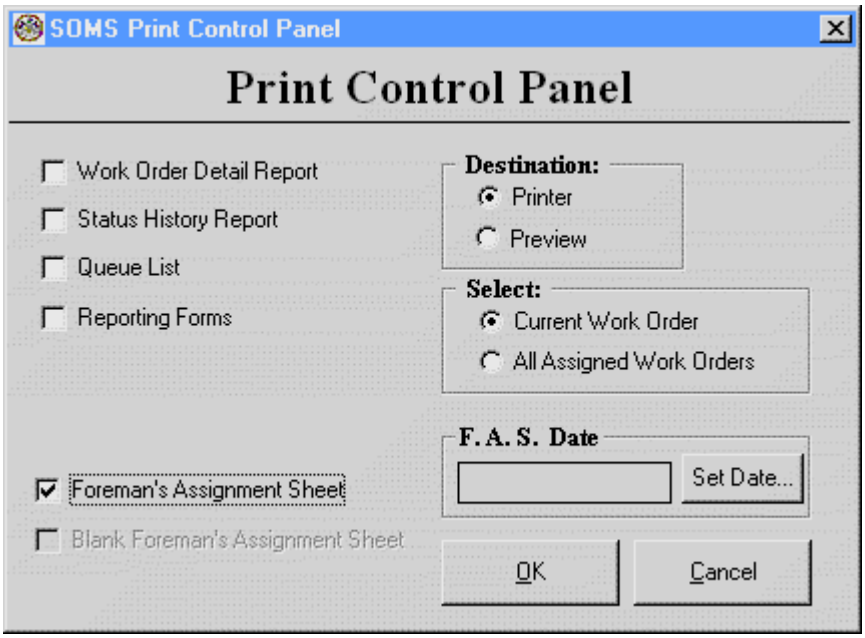


Figure 11.14 - Foreman's Assignment Sheet Printing

8. Blank Foreman's Assignment Sheet - This option does not require the entry of a F.A.S. Date and does not send any work order information to Excel. It creates a preformatted report with no work order specific information.
9. OK - processes the selected options to create the reports, etc.
10. Cancel - Closes the Print Control Panel without processing the reports.

Reporting Mode

By clicking on the **Reporting Mode/Planning Mode** button the user will shift the mode of the Section screen. When in Reporting Mode, the tabs at the bottom of the form are used to enter actual resource usage each day. Upon entering Reporting mode the

calendar is displayed to remind the user to set the reporting day. The **Set Day** button is used to open the calendar to change the day for which the Actual usage are being reported. All reported information is tracked by date accomplished.

Daily Hours

The **Daily Hours** section contains fields for recording the number of labor hours expended on Leave, Vacancy, and Regular Day Off (RDO). As labor is reported against the various work orders, totals are accumulated in the Regular, Total and OverTime(O.T.) fields for second checking that all hours for the crew complement have been accounted for on the current reporting day.

1. PTC Labor **(Figure 11.15**This tab is used to enter actual labor hours used each day, for each type of labor, for the selected Work Order. Both regular hours and overtime hours are accepted.
2. Production Units **(Figure 11.15**

   The number of production units completed this day are entered into the ***Units Complete*** field. If the production unit is "Crew", "Unit", or Blank, then no entry is made. The daily crew size is entered into the ***Crew Size*** field.

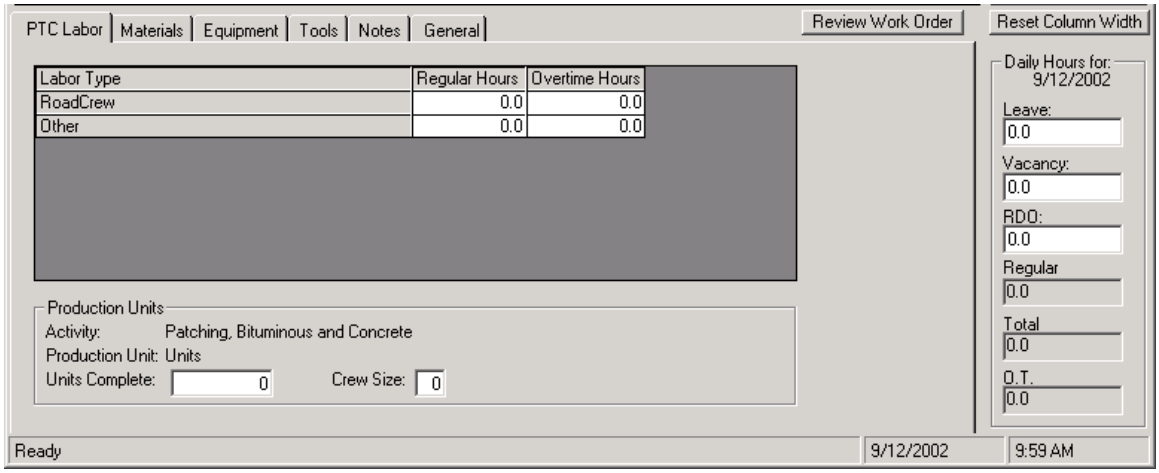


Figure 11.15 - PTC Labor Reporting Tab

3. Materials **(Figure 11.16) T**his tab is used to enter daily material usage. If unplanned materials are required, the **New Material** button at the bottom of the tab can be used to open the Materials Detail screen for adding additional material resources.

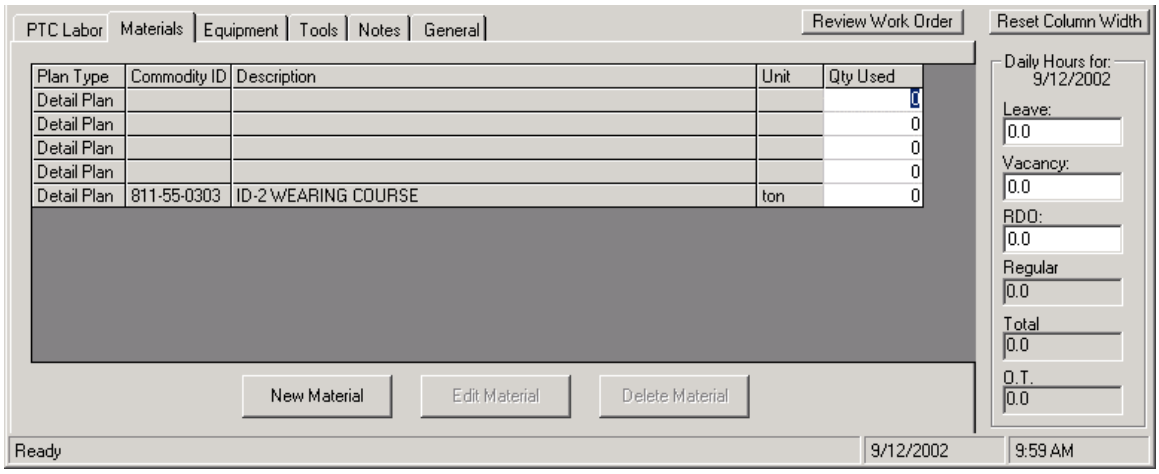


Figure 11.16 - Materials Reporting Tab

4. Equipment **(Figure 11.17)**
   This tab is used to enter daily equipment usage. If unplanned equipment is required, the New Equipment button at the bottom of the tab can be used to open the Equipment Detail screen for adding new equipment resources.

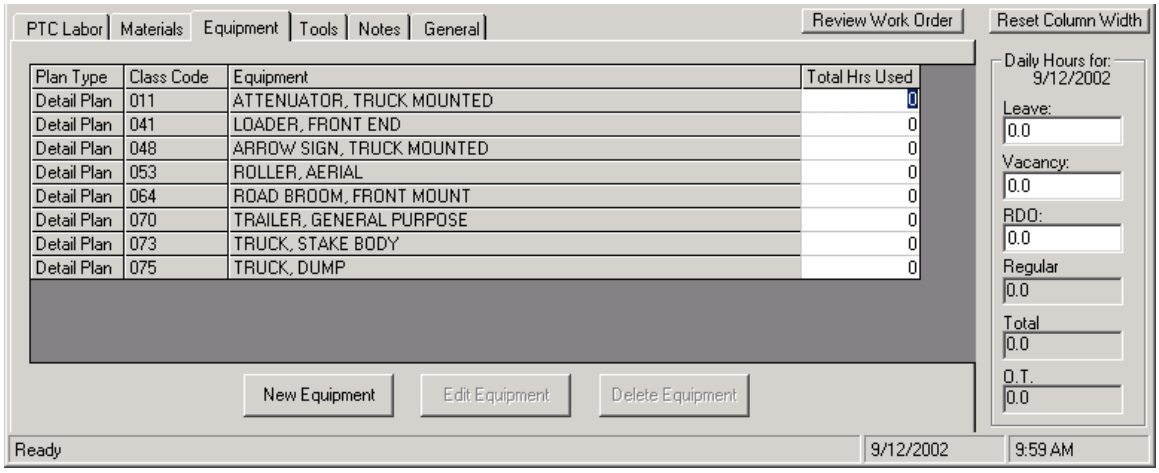


Figure 11.17 - Equipment Reporting Tab

5. Tools **(Figure 11.18)**
   This tab is used to enter daily tools usage. If unplanned tools are required, the New Tool button at the bottom of the tab can be used to open the Tools Detail screen for adding new tools to the Work Order.

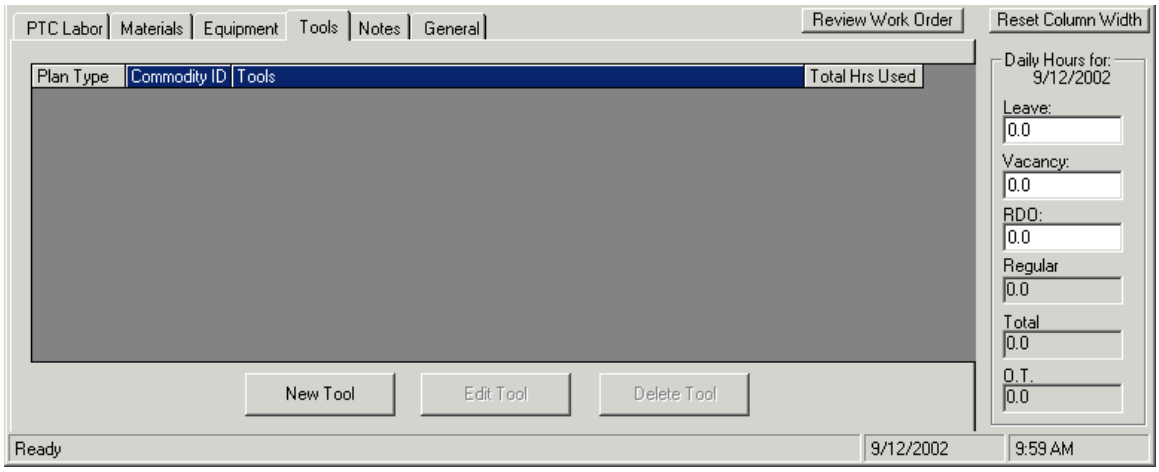
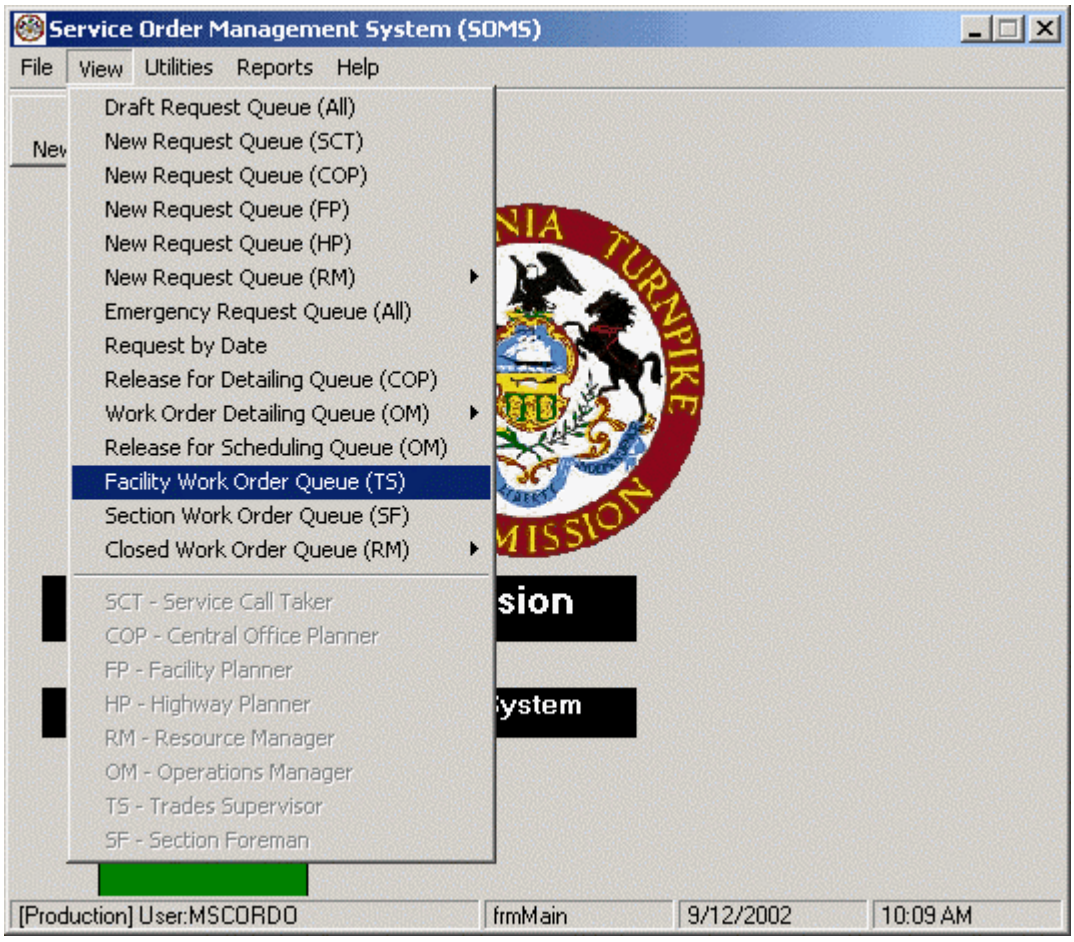


Figure 11.18 - Tools Reporting Tab

6. Notes
This tab allows the Foreman to record notes on the progress of the Work Order.

Section 12

Facility Work Order Queue



The Facility Work Order Queue is opened from the Main Screen **Queues** button. It is used by the Facility Trades Supervisor to display all Work Orders Released for Scheduling (including Urgent and Emergency requests) at his location. The information supplied on this screen assists the Supervisor track and report actual and unplanned materials, equipment, and tools usage and PTC Labor.

The Main Grid

The main grid at the top of the form displays all open work orders released for scheduling at the given location. **(Figure 12.1)** Administrators using this screen can view other locations by selecting from the drop-down District field at the top of the screen.

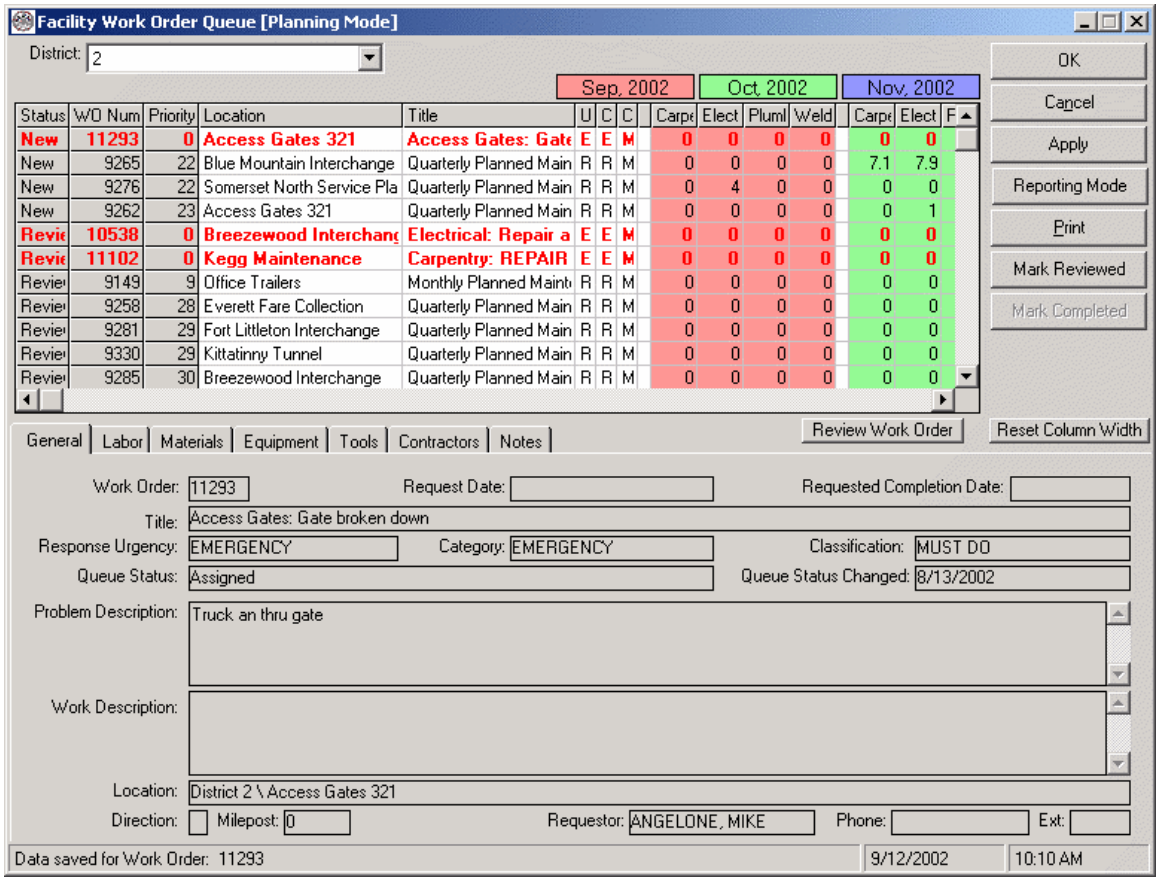

Facility Work Order Queue [Planning Mode]
District: 2
Sep, 2002
Oct, 2002
Nov, 2002
OK
Cancel
Apply
Reporting Mode
Print
Mark Reviewed
Mark Completed
Status WO Num Priority Location Title
New 11293 0 Access Gates 321 Access Gates: Gate
New 9265 22 Blue Mountain Interchange Quarterly Planned Main
New 9276 22 Somerset North Service Pla Quarterly Planned Main
New 9262 23 Access Gates 321 Quarterly Planned Main
Revie 10538 0 Breezewood Interchang Electrical: Repair a
Revie 11102 0 Kegg Maintenance Carpentry: REPAIR
Revie 9149 9 Office Trailers Monthly Planned Maint
Revie 9258 28 Everett Fare Collection Quarterly Planned Main
Revie 9281 29 Fort Littleton Interchange Quarterly Planned Main
Revie 9330 29 Kittatinny Tunnel Quarterly Planned Main
Revie 9285 30 Breezewood Interchange Quarterly Planned Main
General Labor Materials Equipment Tools Contractors Notes
Review Work Order
Reset Column Width
Work Order: 11293
Request Date:
Requested Completion Date:
Title: Access Gates: Gate broken down
Response Urgency: EMERGENCY
Category: EMERGENCY
Classification: MUST DO
Queue Status: Assigned
Queue Status Changed: 8/13/2002
Problem Description: Truck an thru gate
Work Description:
Location: District 2 \ Access Gates 321
Direction:
Milepost: 0
Requestor: ANGELONE, MIKE
Phone:
Ext:
Data saved for Work Order: 11293
9/12/2002
10:10 AM

Figure 12.1 - Facility Work Order Queue

Work Orders with an Urgency Classification of Emergency will appear in red. Urgent work orders will appear in magenta. Routine Work Orders will be listed in plain black text. Emergencies appear first in the grid, followed by Urgent Work Orders. The remaining Work Orders appear in order of priority as established by the Central Office Planner or District Operations Manager.

Clicking on any column header in the main grid will resort the grid by that column. The first sort will be in ascending order, a second click will resort the list in descending order by that column's values. The sort order can be returned to the original order by clicking on the button that appears below the District field.

Button Controls

The buttons to the right of the Main Grid perform a variety of functions. Some of the buttons will be disabled if their function is not applicable to the selected Work Order.

7. **OK** Button – Saves changes made to this screen, then closes the screen.
8. **Cancel** Button – Closes the screen without saving changes.
9. **Apply** Button – Saves changes and refreshes the screen.
10. **Reporting/Planning Mode** Button – Changes screen mode to the mode indicated on the button face prior to being clicked. **(Figure 12.1)** The screen's current mode is always indicated in the Title Bar at the top of the Screen.

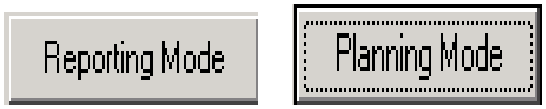


Figure 12.2 - Changing Screen Modes

When in **Planning Mode**, the tabs at the bottom of the screen are used for planning crew assignments.
When in **Reporting Mode**, the tabs are used for reporting actual resource usage.

11. **Print** Button – Opens the Print Control Panel, described in detail later within this section.
12. **Mark Reviewed** Button – This is used by the Section Foreman to mark a Work Request that has been reviewed but not yet assigned. This can help him to easily identify when new Emergency and Urgent orders appear in the Queue, for these need to be addressed quickly.
13. **Mark Completed** Button – Used by the Section Foreman to indicate when work has been completed on an Order, but still needs to be reported on.
14. **Close Work Order** Button – This button is hidden except when in Reporting Mode. It opens the Close Work Order screen. **(Figure 11.3)** It is only available for Work Orders marked Completed.
15. **Review Work Order** Button **-** This button is available in both the Planning and Reporting Modes. It opens a four panel screen depicting the entire life of the work order, from Work Request, Initial Planning, Detail Planning, to Actual Work reported.

16. **Reset Column Width** Button - This button will resize all of the grid columns to their default size. Column widths are user adjustable and the width settings are "remembered" for each user between sessions.

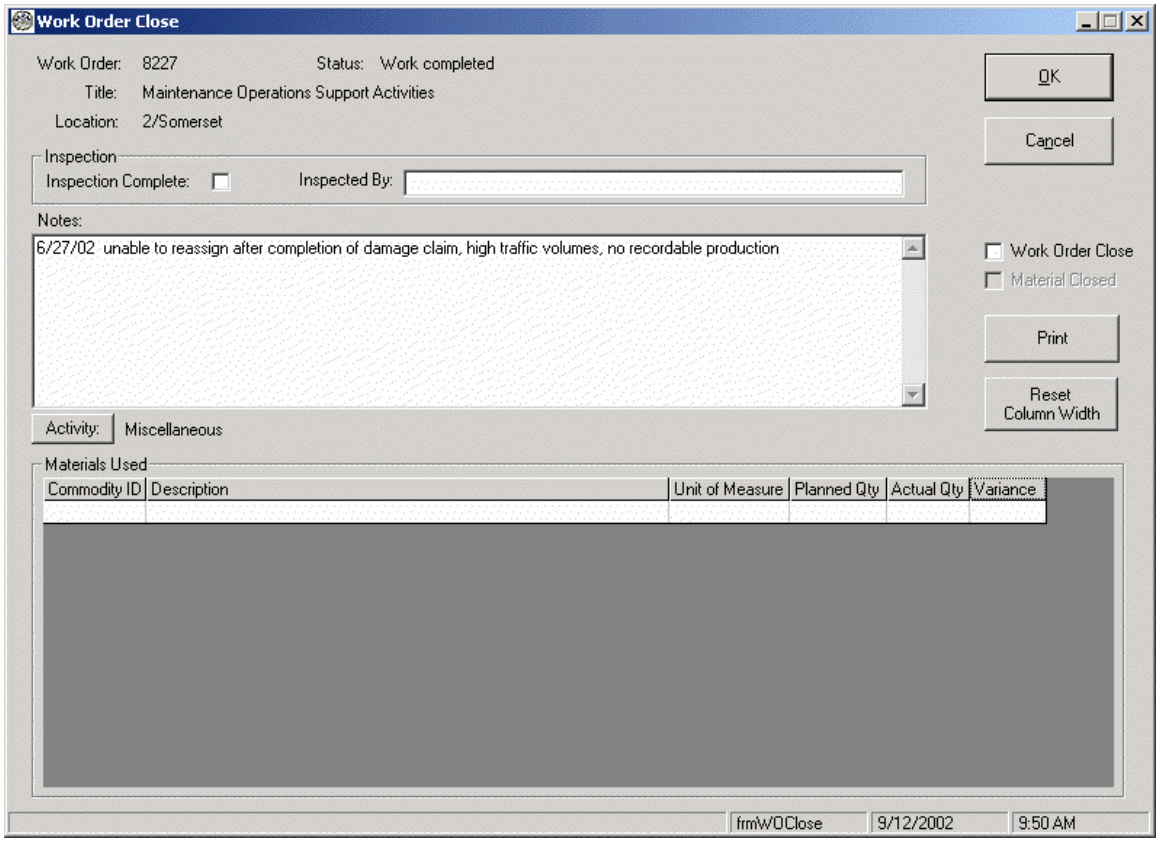


Figure 12.3 - Work Order Close

Using the Work Order Close Screen

The Work Order Close screen lists all materials planned and used for the specified Work Order. It was designed to assist in determining if a Work Order can be marked Material Closed. Several features are available to meet this objective:

1. The Inspection section **(Figure 12.4)**
2. The Materials Used section allows the user to compare planned resources to actual usage.
3. The View Work Order Button, which generates a detailed report on the current Work Order.

4. The Work Order Closed and Material Closed check boxes **(Figure 12.5). Note:** The Material Closed check box is only visible to users in the Resource Manager Role.

Figure 12.4 - Inspection Section

Figure 12.5 - Closed Buttons

Planning Mode

When in Planning Mode, the tabs at the bottom of the form are used to plan daily labor assignments.

1. General Tab **(Figure 12.6)**
   This Tab displays general information about the Work Order selected in the Main Grid.

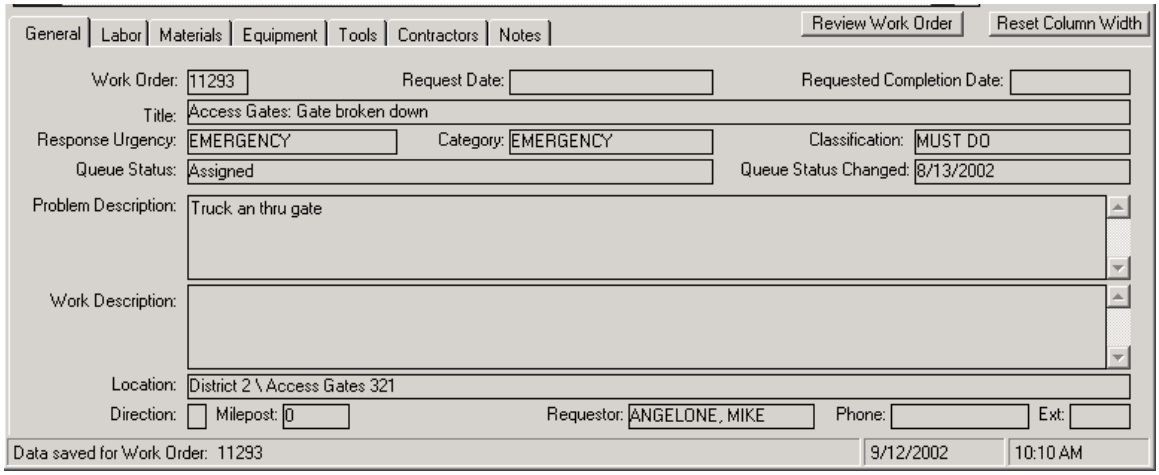


Figure 12.6 - General Planning Tab

2. Labor Tab **(Figure 12.7)**
   This Tab is used to plan Labor Assignments for the selected Work Order. There are three sections to this tab:

e. People
This grid has 3 rows.

- The first row displays the available Labor Types for the selected Work Order (Roadcrew, Other).
- The second row shows the number of each labor type normally assigned to this maintenance activity, known as the Section Crew Size.
- The third row is used by the Foreman to enter the number of workers being assigned to this activity this day. As numbers are entered into these cells, the Daily Personnel matrix to the right of the screen keeps a running tally of crew assigned versus crew available. Clicking the **Assign** button will commit these entries, and the Foreman can select another Work Order for additional labor assignments.

f. Daily Personnel
Presents a running total of all labor assigned so far this day. The Section Foreman should enter the total number of workers available for the day in the **Crew Available** field. As workers are assigned to various work orders the **Crew Assigned** value will increment up, for a visual comparison to the **Crew Available**.

g. Daily Work Instruction

This field is for listing any specific instructions for the crew leader for this work order. The instructions will print out on the daily reporting form. Whatever is entered in this field is saved and can be edited, deleted, or re-used the next day.

h. Labor Accumulation
There are two sections to the Labor Accumulation Grid.

The **First Section** compares planned labor assignments to the Actual Usage, entered in Reporting Mode, to date for the current month.

- Labor Type – Lists each of the possible labor types.
- Plan – Lists for each labor type the total hours planned so far this month.
- Actual – Lists for each labor type the total Actual hours entered in reporting mode for this month.
- Variance – Lists for each labor type the difference between Planned and Actual labor hours used for this month.

The **Second Section** lists, for each labor type, the total hours planned for this month and the next consecutive 11 months.

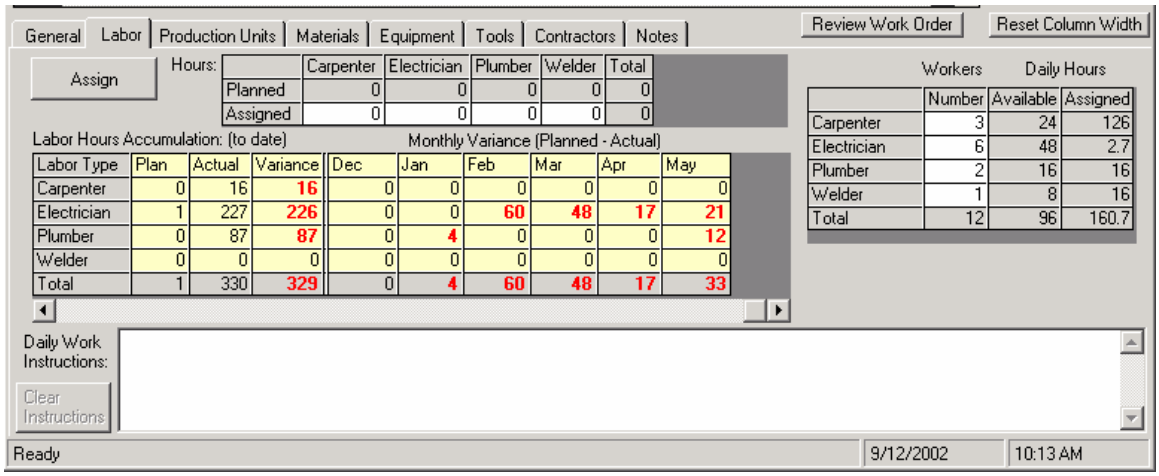


Figure 12.7 - Labor Planning Tab

3. Materials Tab **(Figure 12.8)**
   This tab displays each Material item planned for the current Work Order.

   New, **Edit**, and **Delete** buttons are available for maintaining any **Unplanned** resources. An Unplanned resource can be deleted only if it has not had any actual usage reported against it.

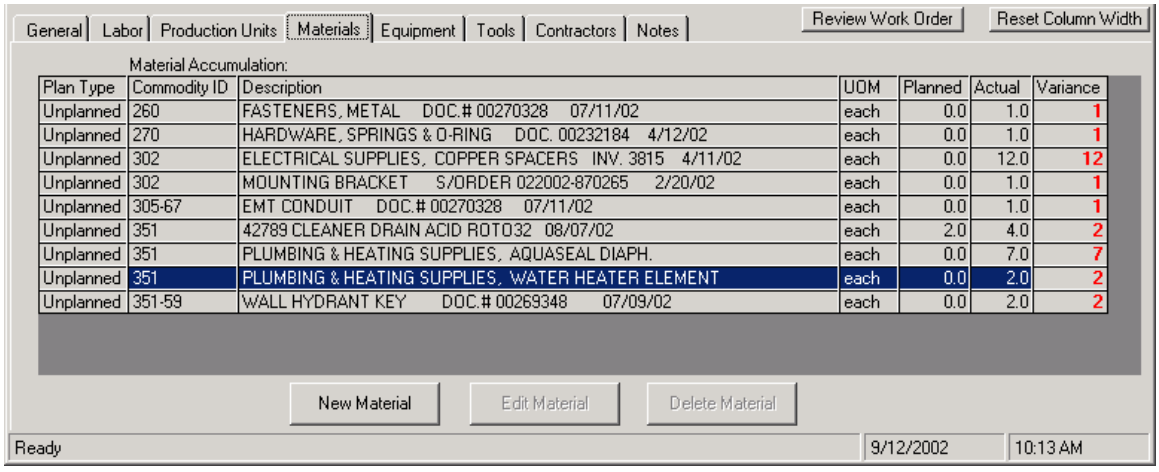

General
Labor
Production Units
Materials
Equipment
Tools
Contractors
Notes
Review Work Order
Reset Column Width
Material Accumulation:
Plan Type
Commodity ID
Description
UOM
Planned
Actual
Variance
Unplanned 260 FASTENERS, METAL DOC.# 00270328 07/11/02 each 0.0 1.0 1
Unplanned 270 HARDWARE, SPRINGS & O-RING DOC. 00232184 4/12/02 each 0.0 1.0 1
Unplanned 302 ELECTRICAL SUPPLIES, COPPER SPACERS INV. 3815 4/11/02 each 0.0 12.0 12
Unplanned 302 MOUNTING BRACKET S/ORDER 022002-870265 2/20/02 each 0.0 1.0 1
Unplanned 305-67 EMT CONDUIT DOC.# 00270328 07/11/02 each 0.0 1.0 1
Unplanned 351 42789 CLEANER DRAIN ACID ROTO32 08/07/02 each 2.0 4.0 2
Unplanned 351 PLUMBING & HEATING SUPPLIES, AQUASEAL DIAPH. each 0.0 7.0 7
Unplanned 351 PLUMBING & HEATING SUPPLIES, WATER HEATER ELEMENT each 0.0 2.0 2
Unplanned 351-59 WALL HYDRANT KEY DOC.# 00269348 07/09/02 each 0.0 2.0 2
New Material
Edit Material
Delete Material
Ready
9/12/2002
10:13 AM

Figure 12.8 - Materials Planning Tab

4. Equipment Tab **(Figure 12.9)**
   This tab displays each Equipment item planned for the current Work Order.

New, **Edit**, and **Delete** buttons are available for maintaining any **Unplanned** resources. An Unplanned resource can be deleted only if it has not had any actual usage reported against it.

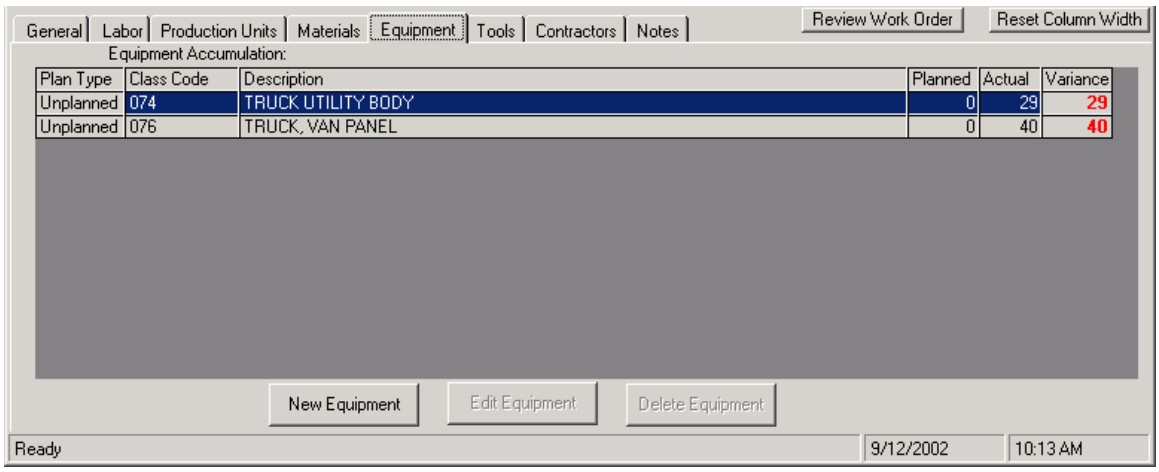


Figure 12.9 - Equipment Planning Tab

5. Tools Tab **(Figure 12.10)**
   This tab displays each Tool planned for the current Work Order.

   New, **Edit**, and **Delete** buttons are available for maintaining any **Unplanned** resources. An Unplanned resource can be deleted only if it has not had any actual usage reported against it.

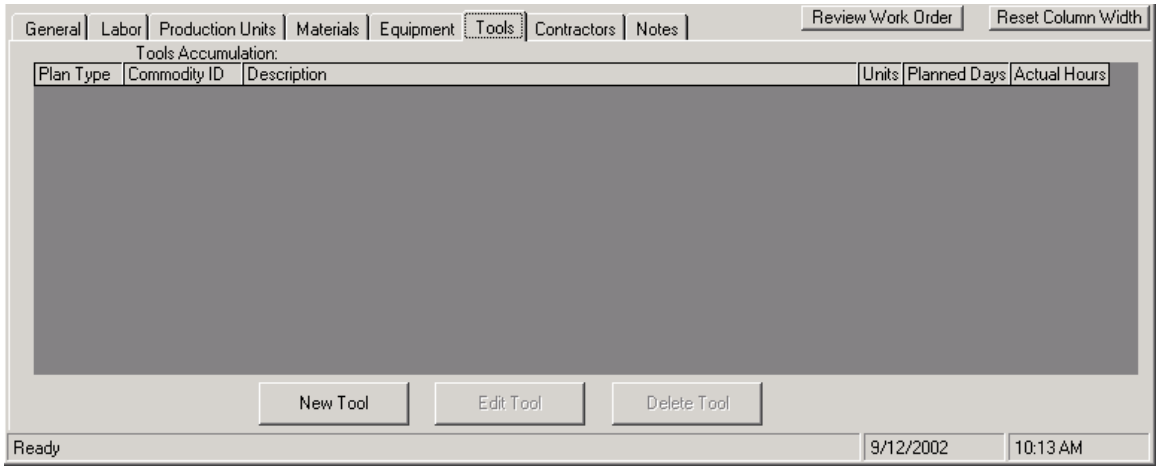


Figure 12.10 - Tools Planning Tab

6. Contractors Tab **(Figure 12.11)**
   This tab shows each Contractor planned for the current Work Order.

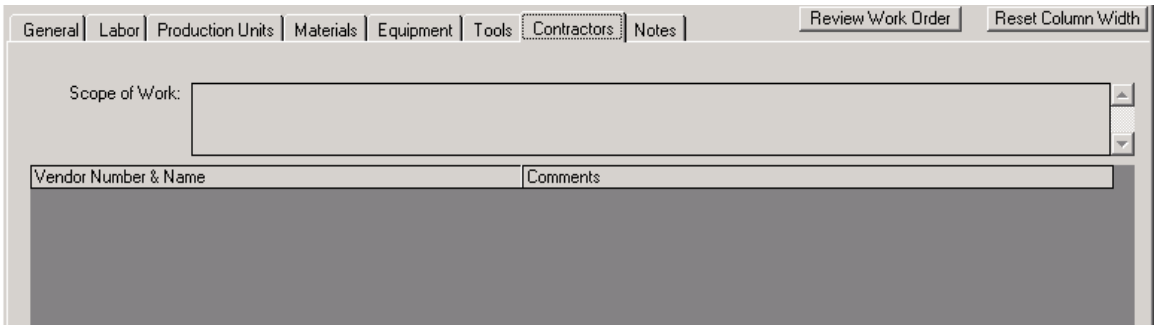


Figure 12.11 - Contractor Planning Tab

7. Notes Tab **(Figure 12.12)**
   This tab displays any notes on the Work Order that may have been entered during reporting.

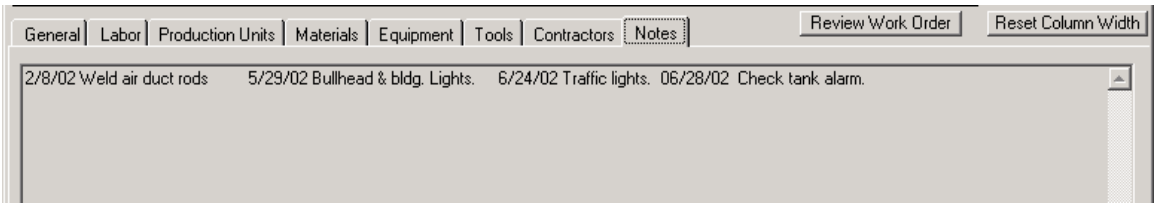


Figure 12.12 - Notes Planning Tab

Print Control Panel

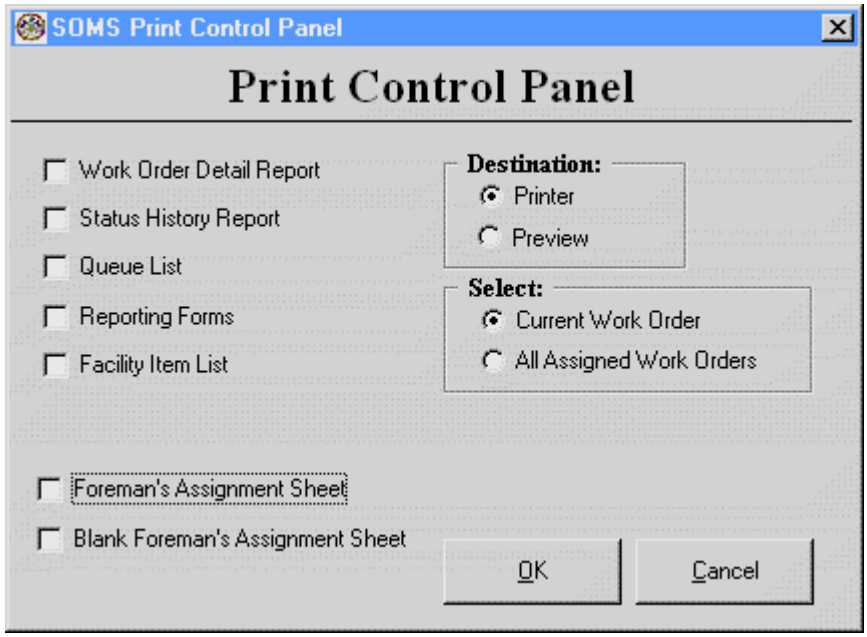


Figure 12.13 - Section Print Control Panel

The Section Queue Print Control Panel (**Figure 12.13)** contains some unique selections along with the standard options.

1. Destination - Select Printer to send the output to the printer or select Preview to open a print preview window, in order to review the output prior to printing.
2. Select - Determines how to apply the chosen report choices, to the Currently Selected Work Order or to All Work Orders with a Status of Assigned. This option does not apply to the History Report or Queue List.
3. Work Order Detail Report - prints a detailed report of all planning and actual usage for the work order to date. If Select is set to All Assigned Work Orders, a WODR will print for each work order in the queue with a status of Assigned. (Not Recommended)
4. Status History Report - provides a chronological listing of status changes to the work order and by whom.
5. Queue Listing -Prints a list of all the work orders in the section queue. Is not affected by the Select box choice.
6. Reporting Forms - A customized reporting form for each work order. It contains the Daily Work Instructions and lists of all the planned resources, providing a convenient form for recording actual usage and labor hours. If Select is set to All Assigned Work

Orders, a Reporting form will print for each work order in the queue with a status of Assigned.

7. Foreman's Assignment Sheet - This is a special form created by exporting Assigned Work Order data to a pre-formatted Excel spreadsheet. When selected a special date field must be filled in (**Figure 12.14**). When created the spreadsheet must be saved and the date is used to create a unique filename for the spreadsheet. The Foreman's Assignment Sheet can be edited within Excel prior to printing (from Excel).

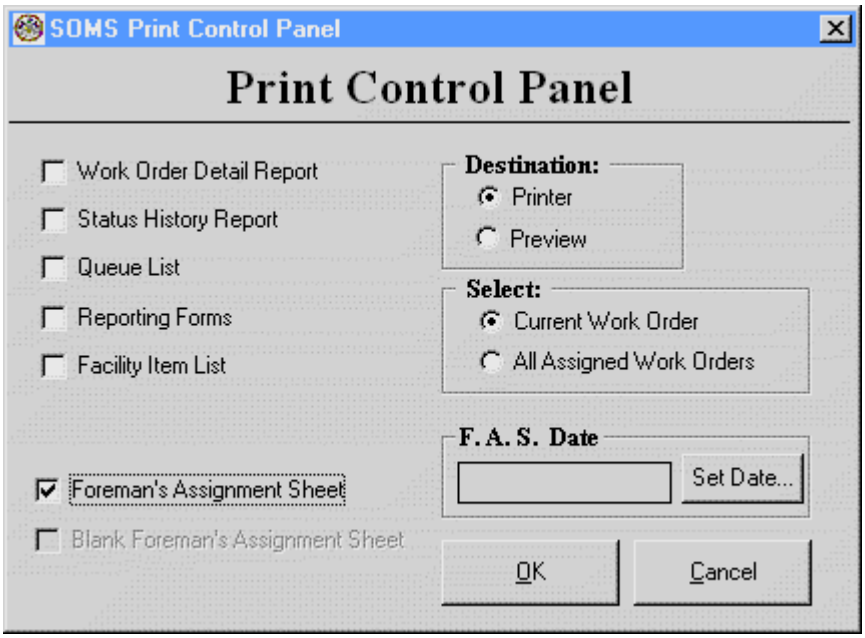


Figure 12.14 - Foreman's Assignment Sheet Printing

8. Blank Foreman's Assignment Sheet - This option does not require the entry of a F.A.S. Date and does not send any work order information to Excel. It creates a preformatted report with no work order specific information.
9. OK - processes the selected options to create the reports, etc.
10. Cancel - Closes the Print Control Panel without processing the reports.

Reporting Mode

By clicking on the **Reporting Mode/Planning Mode** button the user will shift the mode of the Section screen. When in Reporting Mode, the tabs at the bottom of the form are used to enter actual resource usage each day. Upon entering Reporting mode the

calendar is displayed to remind the user to set the reporting day. The **Set Day** button is used to open the calendar to change the day for which the Actual usage is being reported. All reported information is tracked by date accomplished.

Daily Hours

The **Daily Hours** section contains fields for displaying Regular, Total and OverTime hours recorded for the day. This can serve as a good second check that all hours for the day's workers have been accounted for on the current reporting day.

1. PTC Labor **(Figure 12.15)**
   This tab is used to enter actual labor hours used each day, for each type of labor, for the selected Work Order. Both regular hours and overtime hours are accepted.

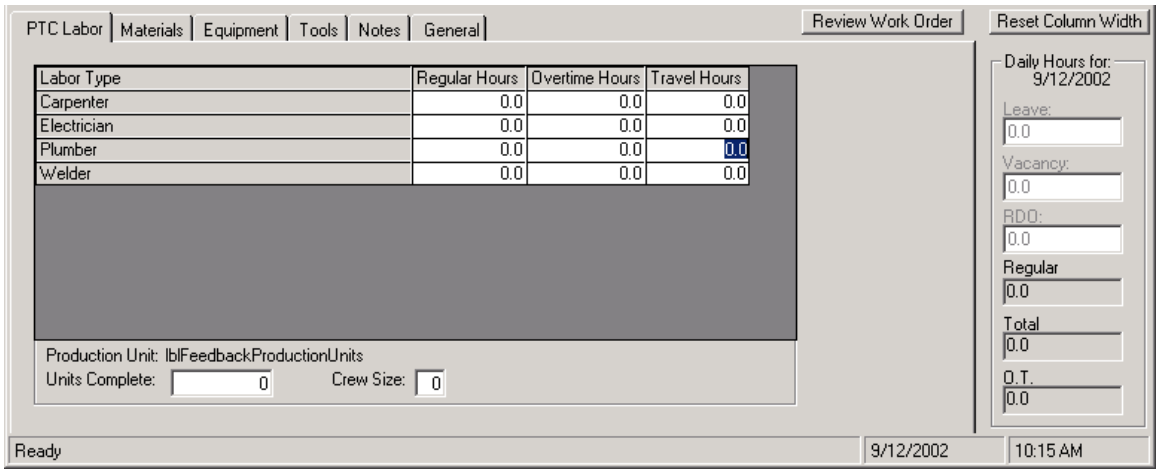


Figure 12.15 - PTC Labor Reporting Tab

2. Materials **(Figure 12.16)**
   This tab is used to enter daily material usage. If unplanned materials are required, the **New Material** button at the bottom of the tab can be used to open the Materials Detail screen for adding additional material resources.

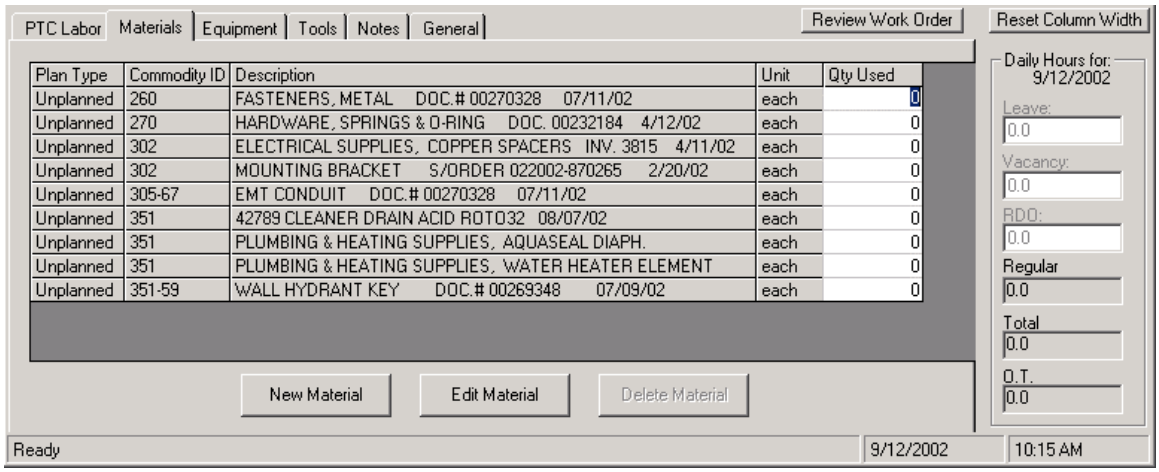


Figure 12.16 - Materials Reporting Tab

3. Equipment **(Figure 12.17)**
   This tab is used to enter daily equipment usage. If unplanned equipment is required, the New Equipment button at the bottom of the tab can be used to open the Equipment Detail screen for adding new equipment resources.

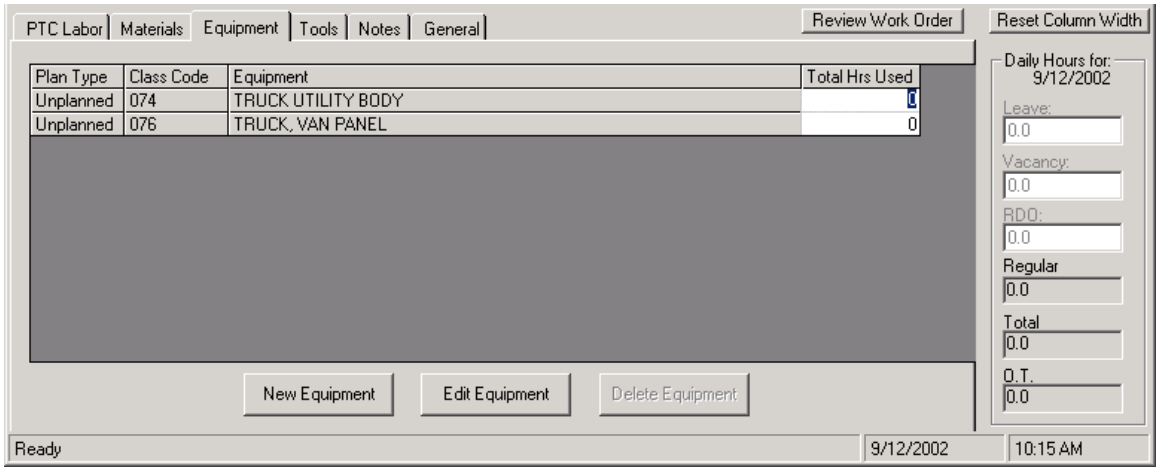


Figure 12.17 - Equipment Reporting Tab

4. Tools **(Figure 12.18)**
   This tab is used to enter daily tools usage. If unplanned tools are required, the New Tool button at the bottom of the tab can be used to open the Tools Detail screen for adding new tools to the Work Order.

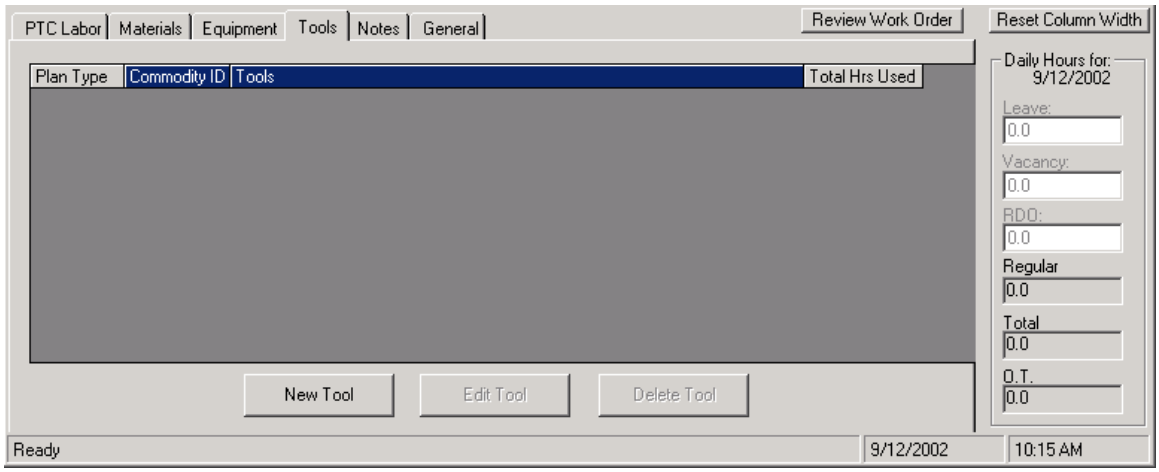
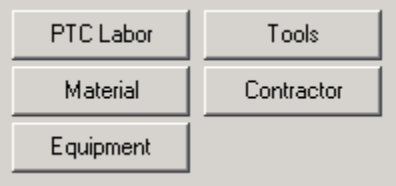


Figure 12.18 - Tools Reporting Tab

5. Notes
This tab allows the Supervisor to record notes on the progress of the Work Order.

Section 13

Adding Labor Resources



Resources are added to Work Requests during Initial Planning, Detail Planning, and as Unplanned resources during daily Actual Usage reporting. The process to add each of the five resources is the same, regardless of which stage the resource is added.

The following section explains the screens used to add or edit Labor Resources in SOMS.

There are different classifications of labor within the PA Turnpike Commission according to whether the Work Request is for Facility or Highway.

PTC Labor - Facility

1. Carpenter
2. Electrician
3. Plumber
4. Welder

PTC Labor – Highway

1. Road Crew
2. Other

Entering Labor

Each type of labor necessary for a work order must be added individually. The PTC Labor button is used to open the forms necessary to make these allocations.

1. Click **PTC Labor**. This will display the Labor Form. **(Figure 13.1)**

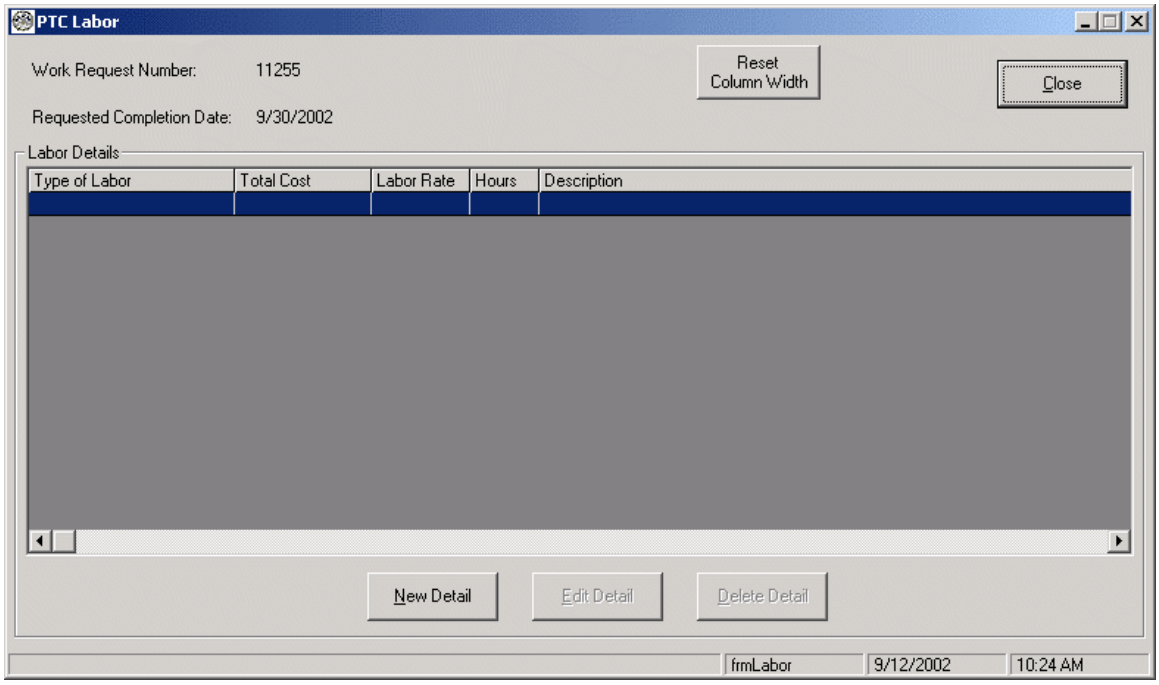


Figure 13.1 - PTC Labor Form

2. Click **New Detail**. This will display the PTC Labor Detail Form. **(Figure 13.2)**

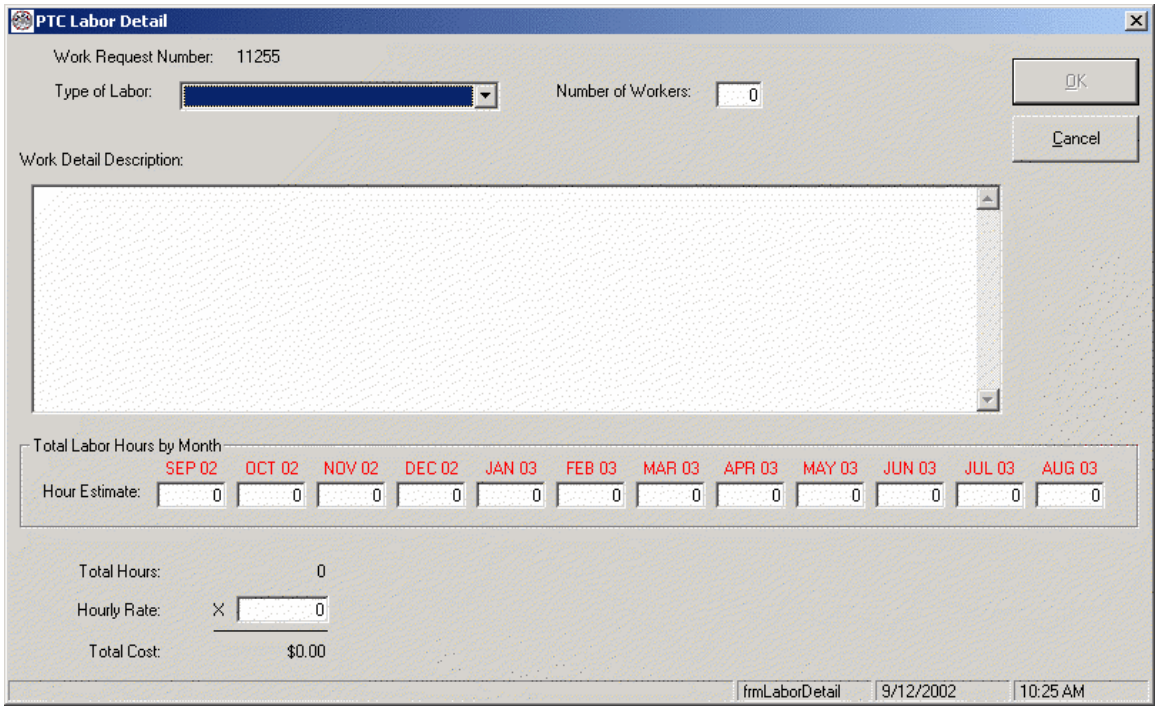

PTC Labor Detail
Work Request Number: 11255
Type of Labor:
Number of Workers: 0
OK
Cancel
Work Detail Description:
Total Labor Hours by Month
SEP 02 OCT 02 NOV 02 DEC 02 JAN 03 FEB 03 MAR 03 APR 03 MAY 03 JUN 03 JUL 03 AUG 03
Hour Estimate: 0 0 0 0 0 0 0 0 0 0 0 0
Total Hours: 0
Hourly Rate: X 0
Total Cost: $0.00
frmLaborDetail
9/12/2002
10:25 AM

Figure 13.2 - PTC Labor Detail Form

3. For a Facility Work Order, click the **Type of Labor Drop-down** arrow and select the appropriate labor type. On a Highway Work Order, all labor is planned at the Road Crew level and a Road Crew labor record is created by default. This record can be Edited to enter the number of workers and total labor hours.
4. Enter a Work Description.
5. Enter the Estimated Number of Hours the resource will work on the request in the appropriate month. **(Figure 13.3)** ***It is possible to spread the workload over more than one month.***

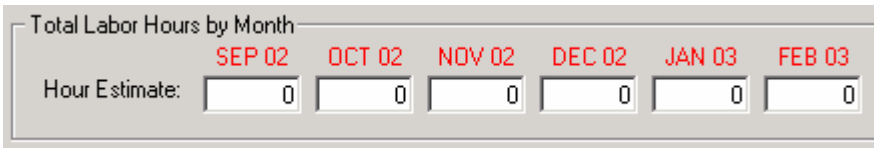


Figure 13.3 - Labor Hours

6. The hourly rate for the resource is defaulted in the Rate field and can be changed if necessary. If there is more than one resource of the same type, enter the number of workers for the task. You cannot add the same labor type twice to a work order.

7. SOMS will compute the request's 'man hours' based on the hours entered in the monthly buckets for each particular Labor Type. **(Figure 13.4)**

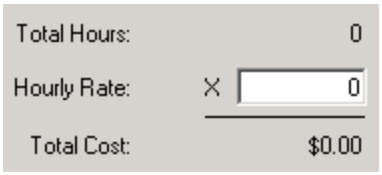


Figure 13.4 - Labor Costs

8. Click **OK**. This will display the PTC Labor Form with the new labor entry.
9. Click **New Detail** to add additional labor resource types to the request. ***Repeat steps 3 through 8 until all required resource types have been added to the plan.***

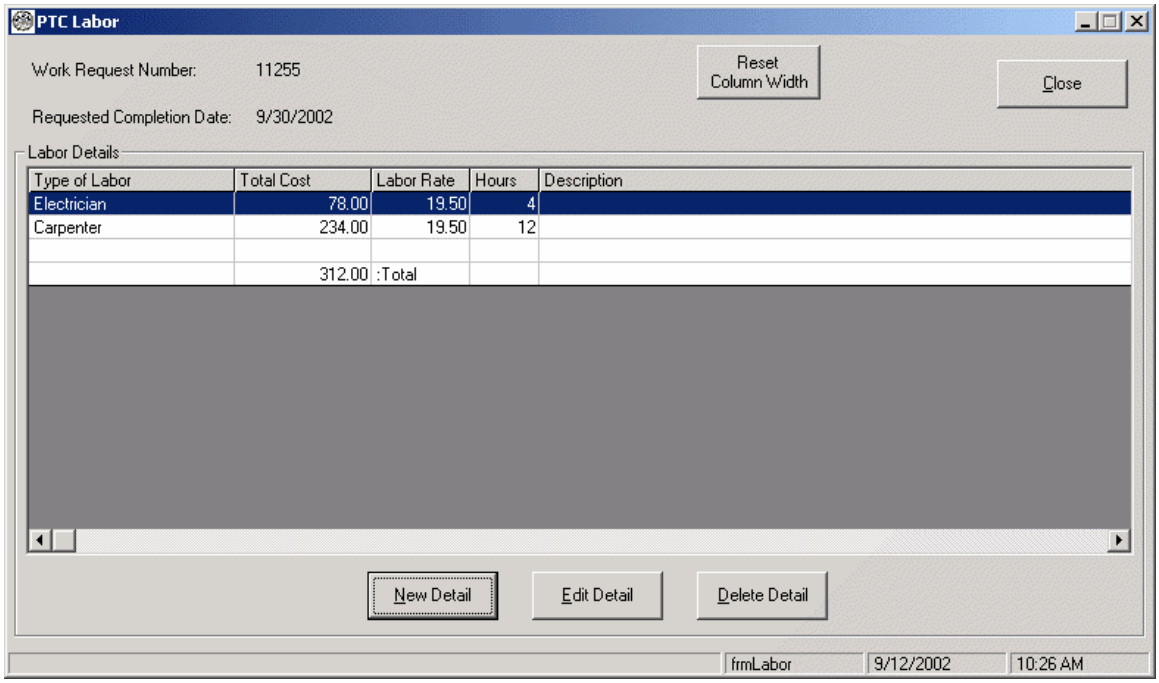
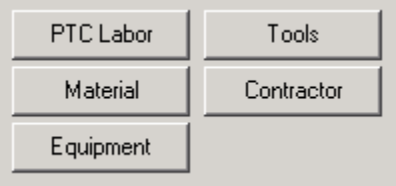


Figure 13.5 - PTC Labor with Entries

Section 14

Adding Material Resources



Resources are added to Work Requests during Initial Planning, Detail Planning, and as Unplanned resources during daily Actual Usage reporting. The process to add each of the five resources is the same, regardless of which stage the resource was added.

The following section explains the screens used to add or edit Material Resources in SOMS. These are the building materials used to construct or repair a project. Lumber, nails, tar, concrete mix, mortar mix, nuts, bolts, and electrical wire are examples of Materials.

Materials are referenced by Commodity ID, which is composed of **Group, Class, Sub Class,** and **Item Code** numbers. Each material is based upon a Unit. The unit of measure is the standard amount of a material that is typically purchased. For example, cement mix comes in 60lb. bags or ready mixed by the cubic yard. If the repair calls for a small quantity of mix (less than 60lbs.) a single unit (bag) will be designated for the job.

Entering Material

1. Click the **Materials** button. This will display the Materials Form. **(Figure 14.1)**

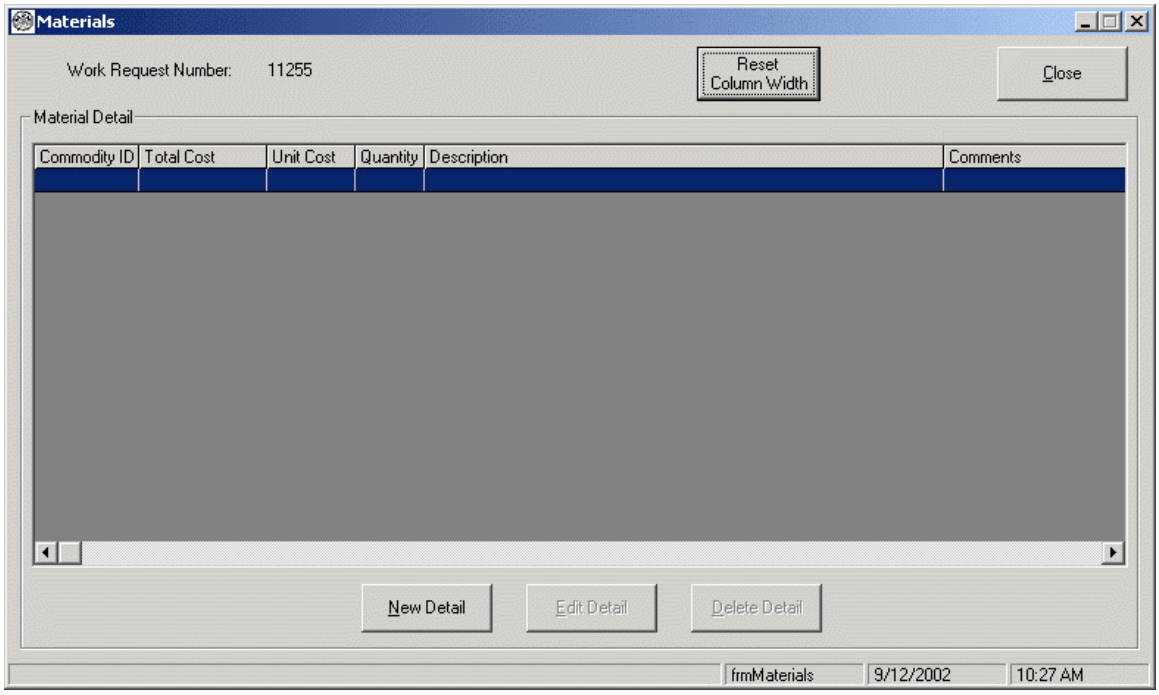


Figure 14.1 - Materials Form

2. Click **New Detail**. This will display the Materials Detail Form. **(Figure 14.2)**

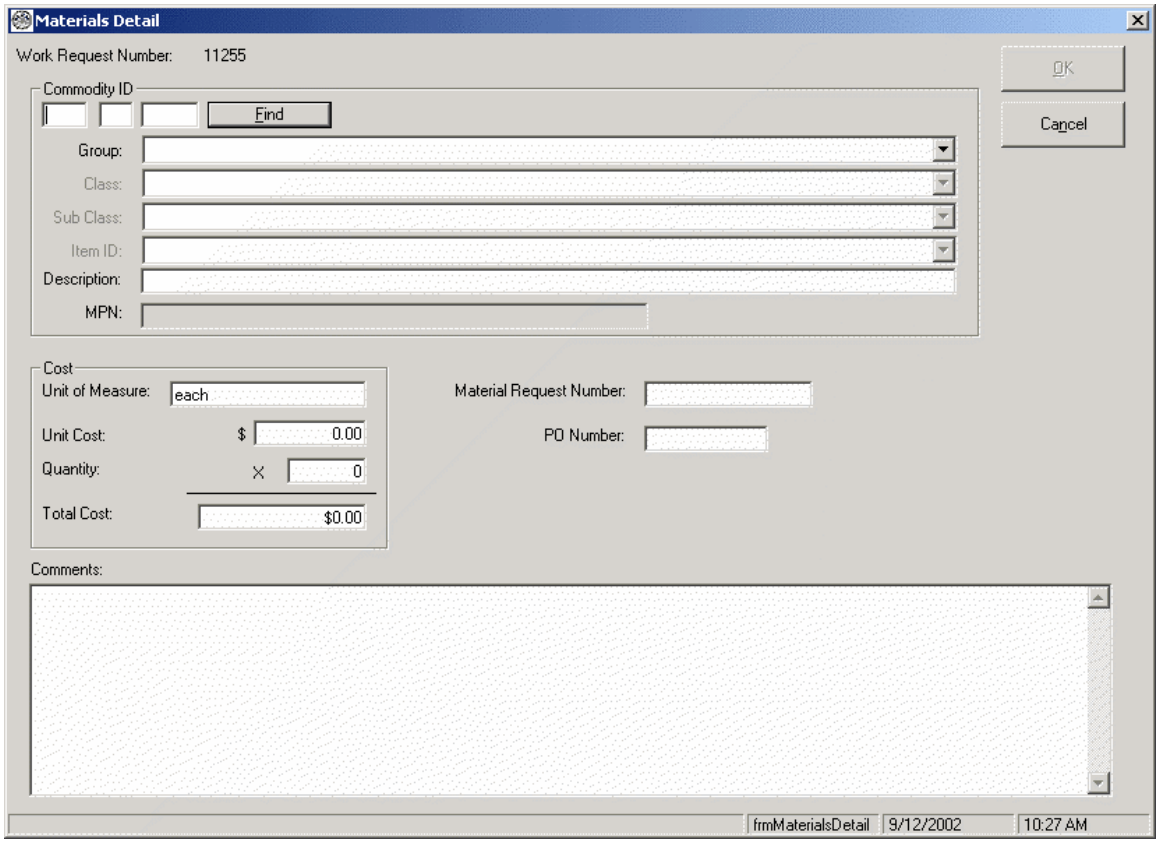


Figure 14.2 - Materials Detail Form

3. If you know any part of the Commodity ID, enter it into the item number fields. The first field accepts a 3-digit Group/Class Code. The second field accepts the 2-digit Sub Class Code, and the last field accepts the specific Item Code.
4. Click **Find**. This will populate the Group, Class, Sub Class and Item Code fields with the items corresponding to the numbers you've entered.
5. If the Commodity ID is unknown, use the Group, Class, Sub Class and Item drop-down lists to quickly find the number. Clicking the **Group Drop-down** arrow will display a list of Groups that the material may be found in. **(Figure 14.3)**

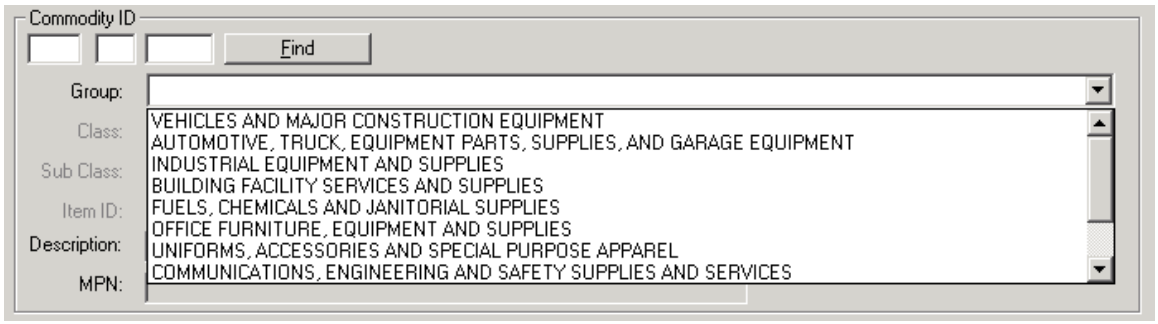


Figure 14.3 - Group List

6. Select the appropriate **Group**. This will populate the Group section of the Item Number, unlock the Class Drop-down field, and populate the Material Description field with the selected text.
7. Click the **Class Drop-down** arrow. This will display a list that the Item may belong to. This will complete the Group section of the Item Number, unlock the Sub Class Drop-down field, and populate the Material Description field with the selected text. **(Figure 14.4)**

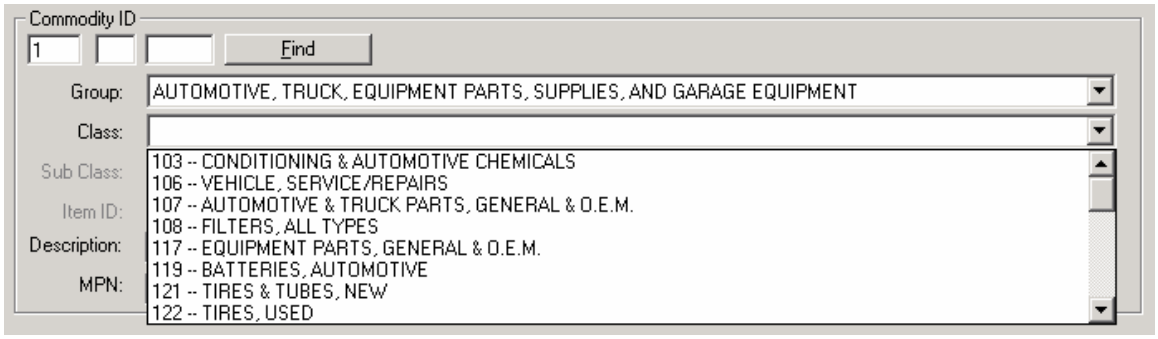


Figure 14.4 - Class List

8. Click the **Sub Class Drop-down** arrow. This will display a list of items for the Group and Class. This will unlock the Item ID Drop-down field, and populate the Material Description field with the selected text. **(Figure 14.5)**

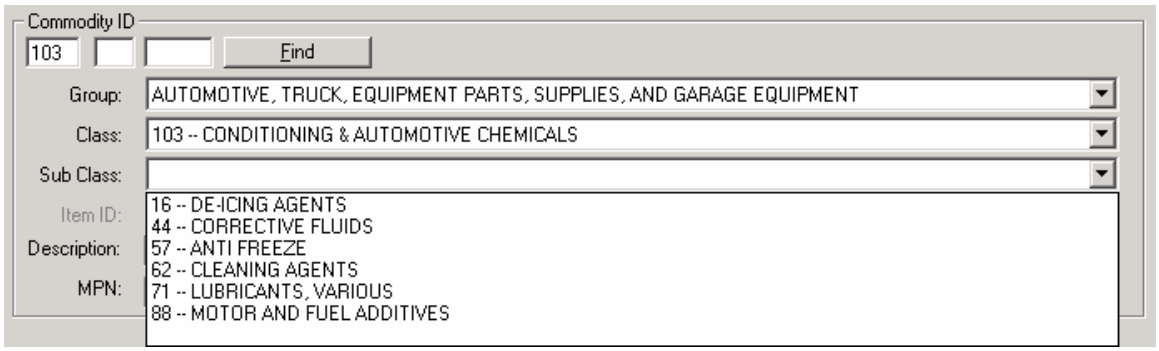


Figure 14.5 - Sub Class List

9. Click the **Item ID Drop-down** arrow. This will display a list of items for the Group, Class and Sub Class. **(Figure 14.6)**
10. Select the Item ID you wish to add to the Materials List.

Notice that the Class Code and Materials Description are now populated with the corresponding Class Code and Item Description for the item.

Computing Materials Cost

To compute a cost for an item:

1. Enter the **Unit of Measure**. The default is supplied from the master list of Items if it is present. It may be possible that an Item has different minimum quantities available for purchase. **(Figure 14.6)**

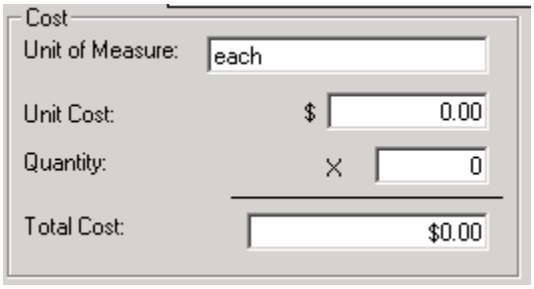


Figure 14.6 - Unit of Measure

2. Enter a Unit Cost or accept the default cost if provided. Use the following format: 0,000.00. You do not need to include a dollar sign for a Unit Cost!
3. Enter the quantity of units that are required for the task. **NOTE**: During detail planning, any resource records with a quantity of zero or blank will be deleted when the work order is marked Material Complete.

4. The Total Cost is automatically computed when a Unit Cost and Quantity are entered. **(Figure 14.7)**

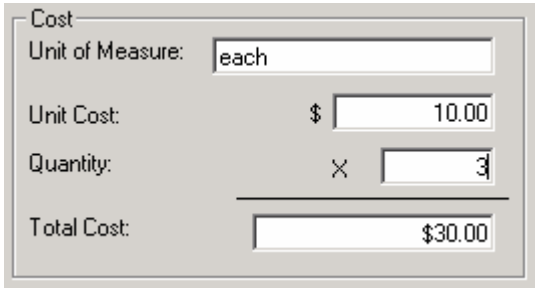


Figure 14.7 - Quantity Cost

5. **Material Request Number** and **PO Number** fields are available to associate the Materials Detail with a Materials Request and Purchase Order Number. **(Figure 14.8)** MR and PO Numbers must be manually entered and are for tracking purposes only. There is no automated connection between SOMS and the Purchasing System. The Resource Manager, prior to being released for Scheduling, may perform this later.

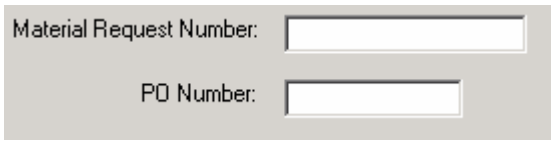


Figure 14.8 - Assign a MR or PO to a Materials Detail

6. Enter the Materials Request Number and/or the Purchase Order Number in their respective fields.
7. Click **OK** to save and close the Materials Detail.

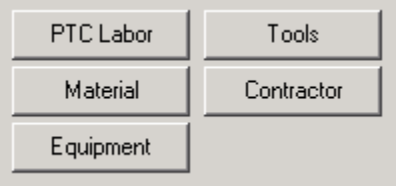
Adding More Materials to the Detail

To add more Materials to the task, click **New Detai**l.

Repeat the previous steps regarding Materials Detail. Continue until all Materials have been added to the request.

Section 15

Adding Equipment Resources



Resources are added to Work Requests during Initial Planning, Detail Planning, and as Unplanned resources during daily Actual Usage reporting. The process to add each of the five resources is the same, regardless of which stage the resource was added.

The following section explains the screens used to add or edit Equipment Resources in SOMS. Equipment refers to the machines needed to complete a project. These are usually motorized or power driven. Power saws, backhoes, chain saws, jackhammers, dump trucks, etc. are examples of Equipment.

Equipment items are referenced by **Class Code**, which is composed of a **Group and Class** code number. Each item is based upon a Unit. The unit is the least amount of an item that can be purchased or rented. For example, day rate, hourly rate, etc. may apply to the base unit for renting a wet saw.

Entering Equipment

1. Click the **Equipment** button. This will display the Equipment Form. **(Figure 15.1)**

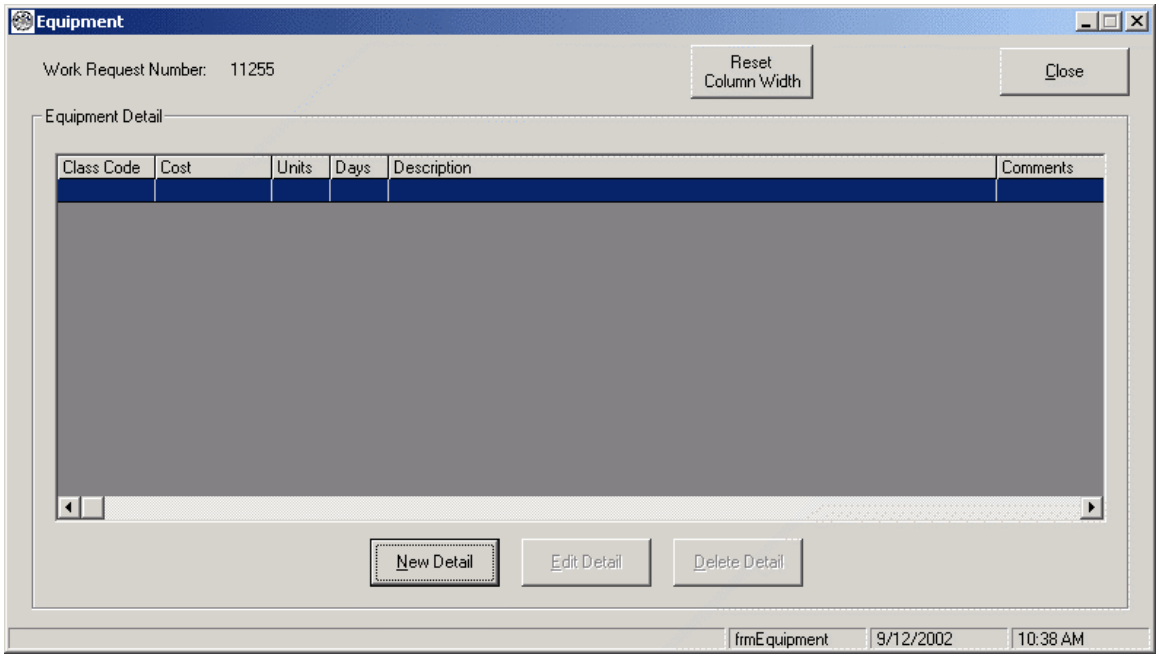


Figure 15.1 Equipment Form

2. Click **New Detail**. This will display the Equipment Detail Form. **(Figure 15.2)**

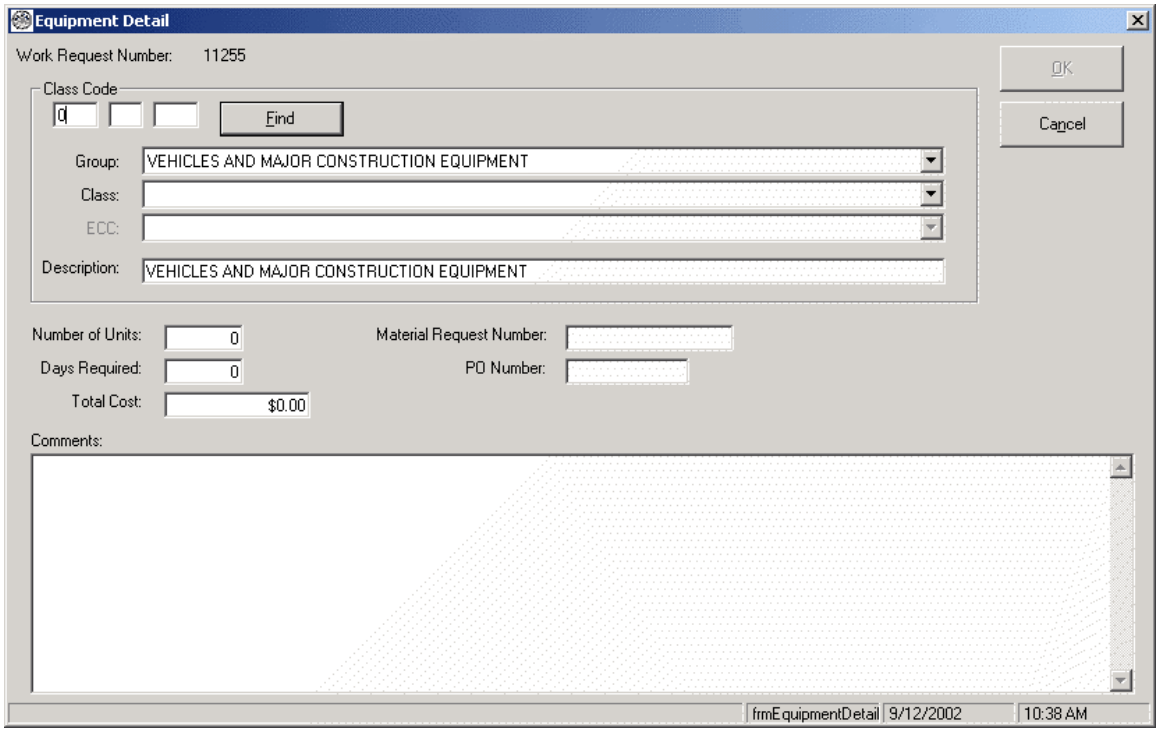


Figure 15.2 - Equipment Detail Form

3. If you know the Group/Class Code for the item, enter the code into the Class Code field. **(Figure 15.3) NOTE:** All rental equipment is listed under Class Code 099.
4. Click **Find**. This will populate the Group, Class and ECC fields with the appropriate descriptions **(Figure 15.3).**

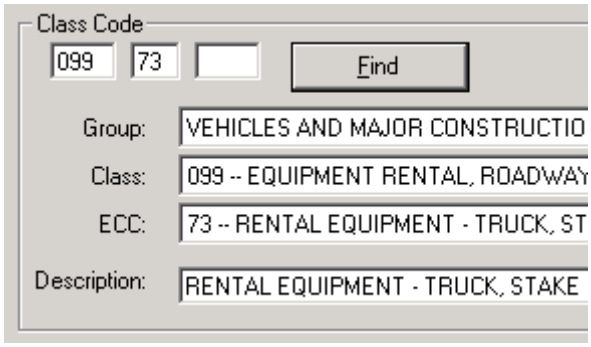


Figure 15.3 - Find Item Number

5. If you are unsure of the Class Code, you may use the Group, Class and ECC dropdown boxes to construct the number. Click the **Group Drop-down** arrow. This will display a list of Groups that the Item may be found in.
6. Select the appropriate Group.
7. Click the **Class Drop-down** arrow. This will display a list that the Item may belong to.
8. Click the **ECC Drop-down** arrow. This will display a list of items for the Group and Class.
9. Select the item you wish to add to the Equipment List.

Notice that the ECC and Equipment Description are now populated with the correct information for the item. **(Figure 15.4)**

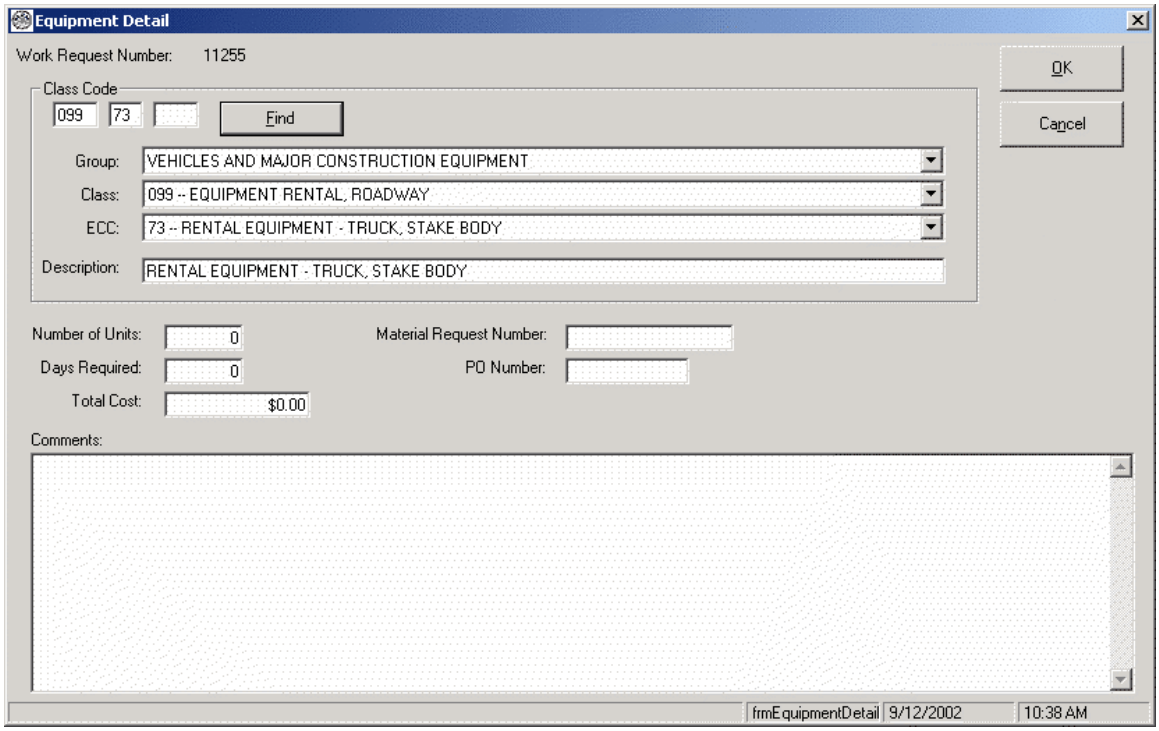


Figure 15.4 - Construct Item Number

Computing Equipment Cost

Equipment cost is not required for turnpike owned equipment. For Rental equipment, enter a total cost, if known, for the full term of the rental into the **Total Cost** field.

1. Enter the number of units that will be needed. **(Figure 15.5)**

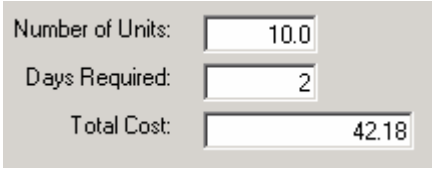


Figure 15.5 - Unit of Measure

2. Enter the number of days needed for the task.
3. Enter the Total Cost.

Equipment Requests and Purchase Orders

To associate the Equipment Detail with a Materials Request or a Purchase Order **(Figure 15.6)**:

1. Enter the Material Request Number and/or the Purchase Order Number in their respective fields. MR and PO Numbers must be manually entered and are for tracking purposes only. There is no automated connection between SOMS and the Purchasing System. The Resource Manager, prior to being released for Scheduling, may do this later.
2. Click **OK** to close the Materials Detail.

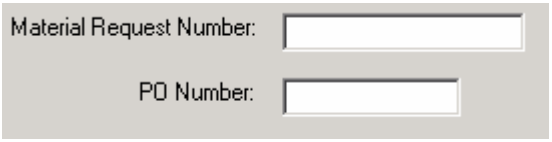


Figure 15.6 - Assign an MR or PO Number

Add any comments to the Equipment Detail in the Comments field.

Make sure to include any specifics that may assist in the completion of the work order. This may include the reason why a particular tool is being planned for, or how the tool is expected to be used.

Adding More Equipment to the Detail

To add more Equipment to the task, click **New Detail**.

Repeat the previous steps regarding Equipment Detail. Continue until all Materials have been added to the request.

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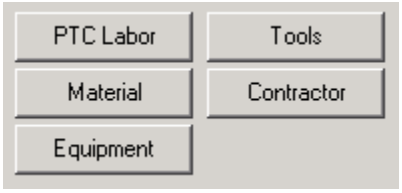
Section 16

Adding Tool Resources



Resources are added to Work Requests during Initial Planning, Detail Planning, and as Unplanned resources during daily Actual Usage reporting. The process to add each of the five resources is the same, regardless of which stage the resource was added.

The following section explains the screens used to add or edit Tool Resources in SOMS. Tools refer to manual implements. These are shovels, rakes, trowels, socket sets, etc.

Tools are referenced by a Commodity ID number, which is composed of **Group/Class code, Sub Class code,** and an **Item code**. Each item is based upon a Unit. The unit is the least amount of an item that can be purchased or rented. For example, day rate, hourly rate, etc. may apply to the base unit for renting a set of wrenches.

Entering Tools

1. Click the **Tools** button. This will display the Tools Form. **(Figure 16.1)**

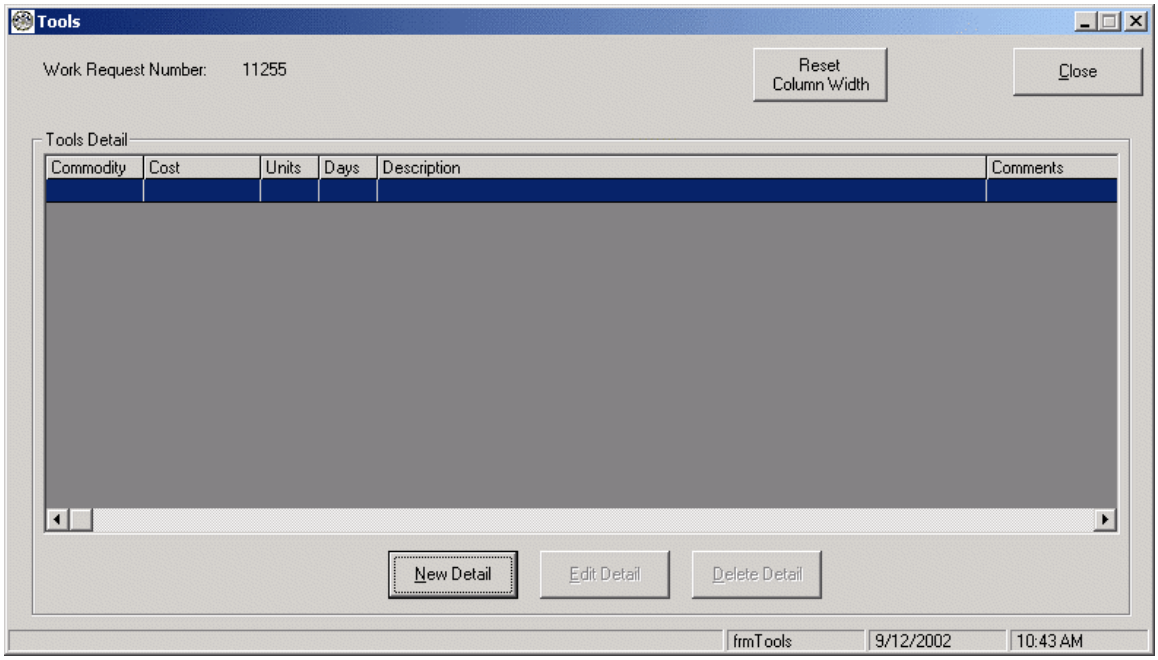


Figure 16.1 - Tools Form

2. Click **New Detail**. This will display the Tools Detail Form. **(Figure 16.2)**

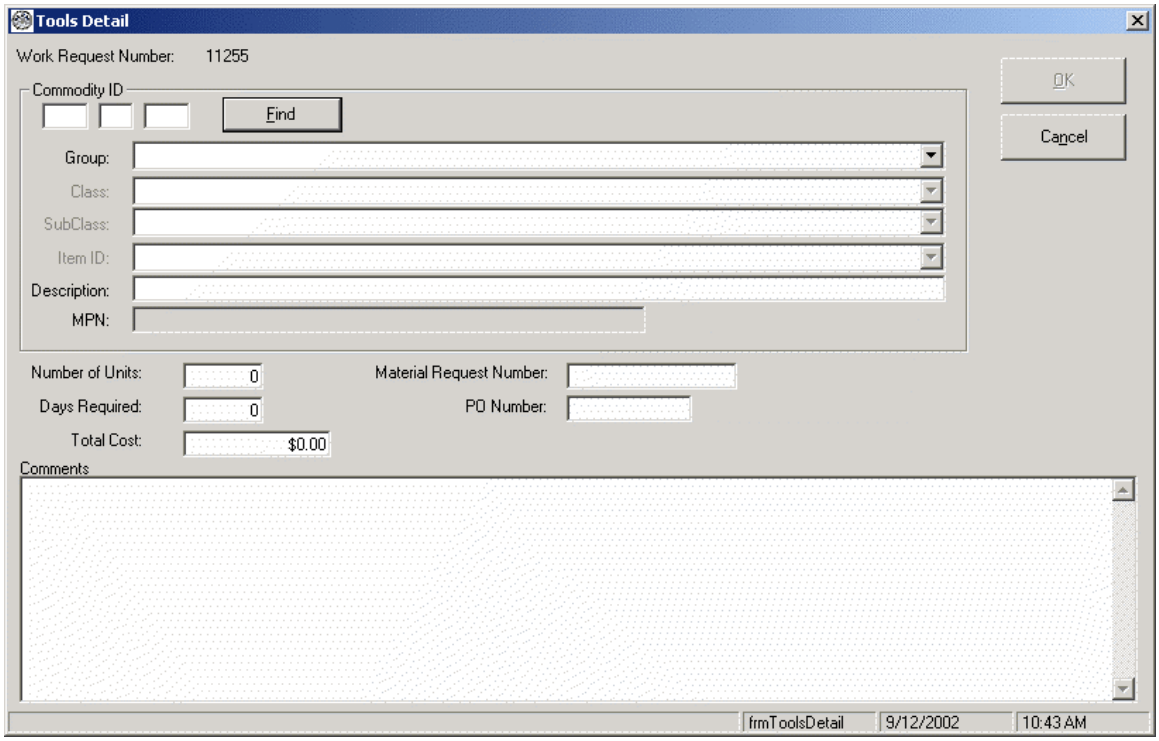


Figure 16.2 - Tools Detail Form

3. If you know the Commodity ID, enter it into the **Commodity ID** fields.
4. Click **Find**. This will populate the Group, Class and Sub Class fields with the proper elements.
5. If the Commodity ID in unknown, you can search for the item by first clicking the **Group Drop-down** arrow. This will display a list of Groups that the Item may be found in. **(Figure 16.3)**

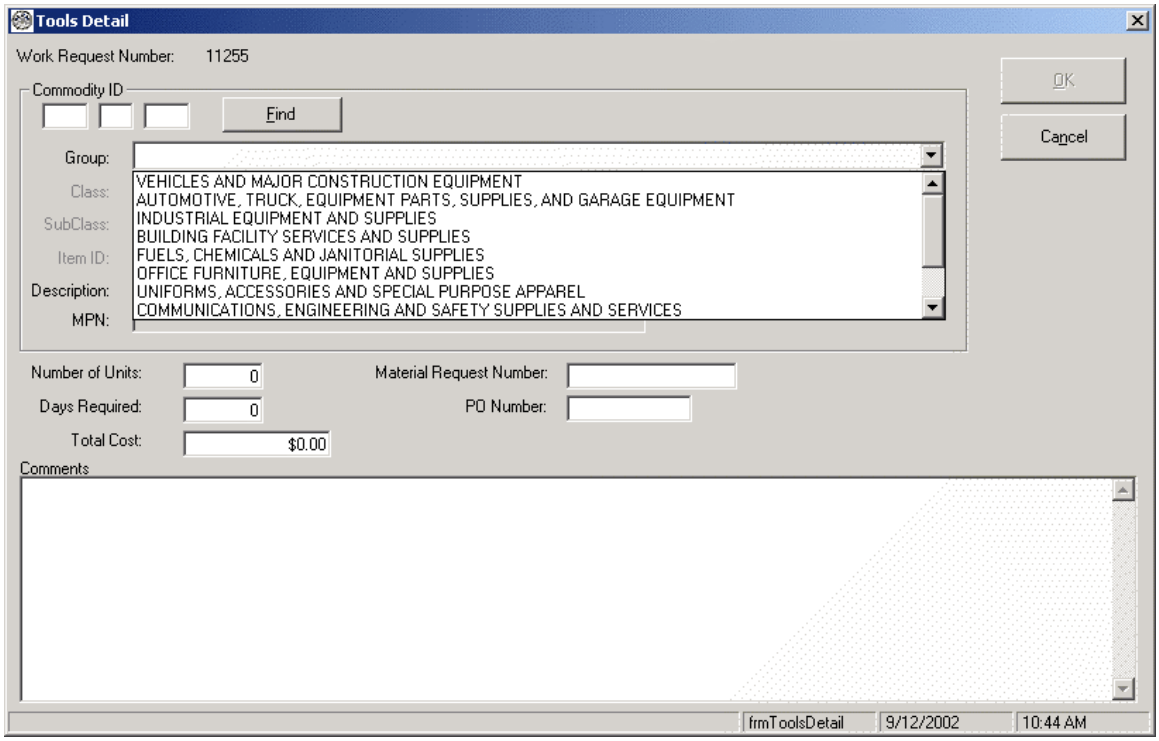


Figure 16.3 - Group List

6. Select the appropriate Group. This will unlock the Class Drop-Down field and populate the Description field with the corresponding text.
7. Click the **Class Drop-down** arrow. This will display a list that the Item may belong to. **(Figure 16.4)**

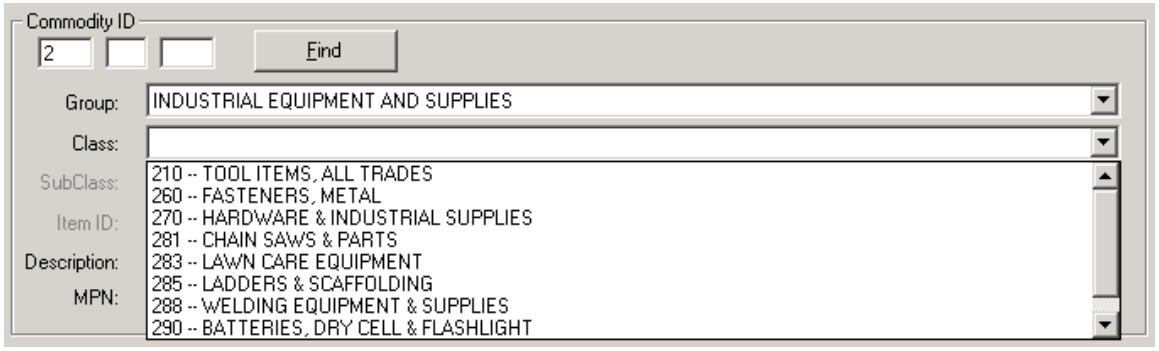


Figure 16.4 - Class List

8. Click the **Sub Class Drop-down** arrow. This will display a list of items for the Group and Class. This will unlock the Item ID Drop-down field, and populate the Material Description field with the selected text. **(Figure 16.5)**

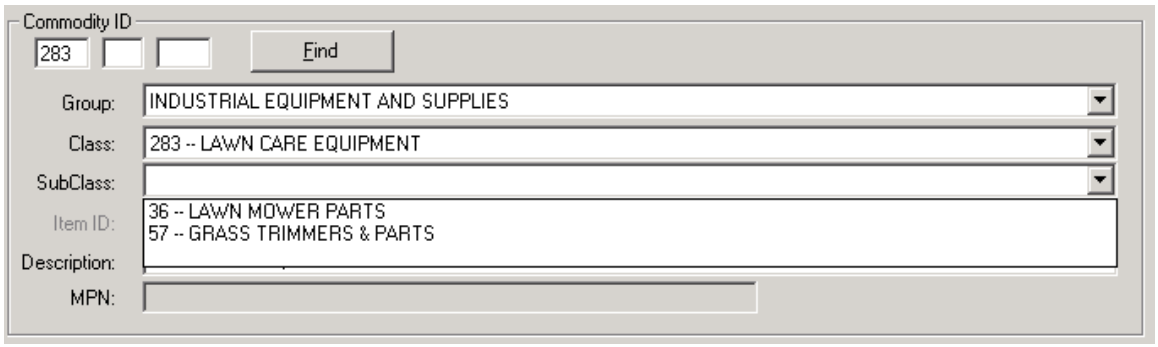


Figure 16.5 - Sub Class List

9. Click the **Item ID Drop-down** arrow. This will display a list of items for the Group, Class and Sub Class. **(Figure 16.6)**
10. Select the Item ID you wish to add to the Materials List.

Notice that the Commodity ID and Tools Description are now populated with the corresponding Code and Item Description.

Computing Tools Cost

To compute a cost for an item:

11. Enter the number of units that will be needed. **(Figure 16.6)**

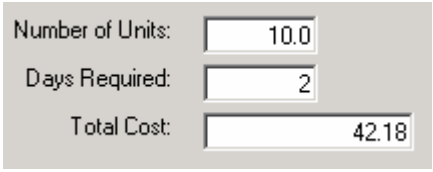
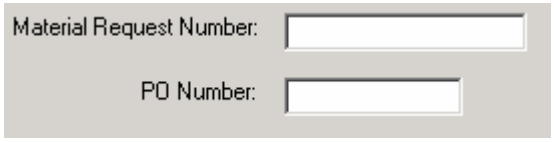


Figure 16.6 - Unit of Measure

12. Enter the number of days needed for the task.
13. Enter the Total Cost.

Material Requests and Purchase Orders



You may associate the Tools Detail with a Materials Request or a Purchase Order. The Resource Manager, prior to being released for Scheduling, may complete this later.

1. Enter the Material Request Number and/or the Purchase Order Number in their respective fields. MR and PO Numbers must be

manually entered and are for tracking purposes only. There is no automated connection between SOMS and the Purchasing System. The Resource Manager, prior to being released for Scheduling, may do this later.

2. Click **OK** to close the Materials Detail.

Add any comments to the Tools Detail in the Comments field.

Adding More Tools to the Detail

To add more Tools to the task, click **New Detail**.

Repeat the previous steps regarding Tools Detail. Continue until all Tools have been added to the request. The Tools screen will then display all the selected tools and total the cost. **(Figure 16.7)**

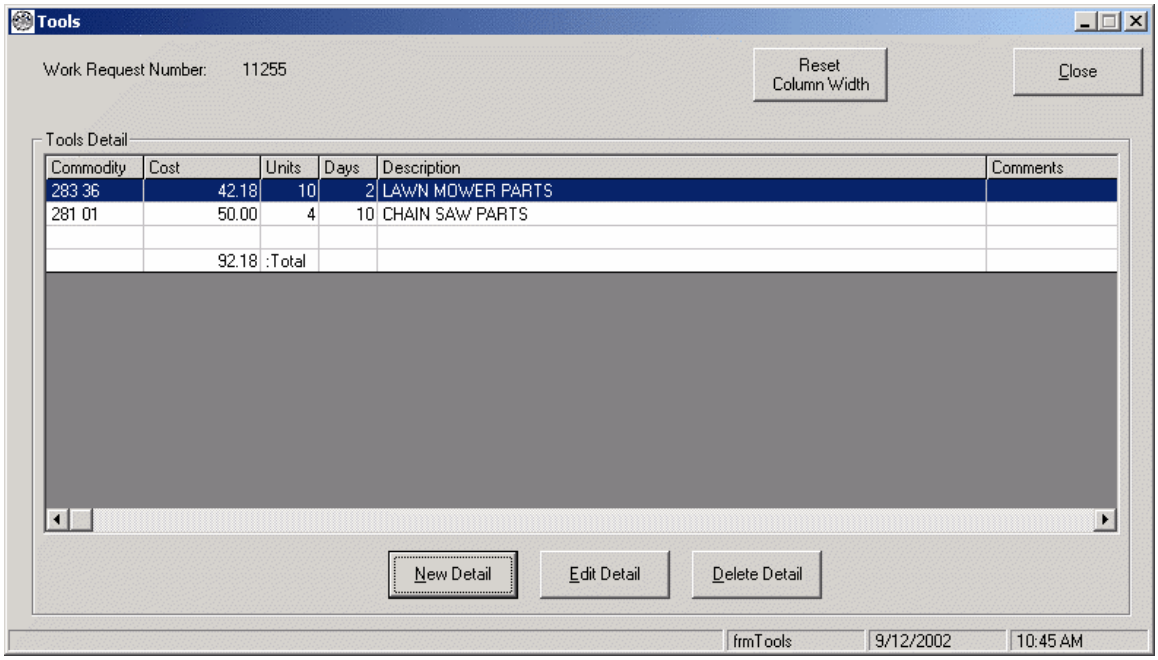
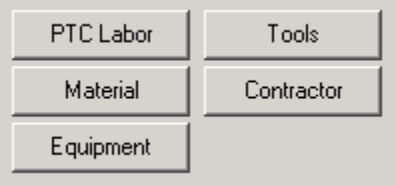


Figure 16.7 - Tools Totals

Section 17

Adding a Contractor



Resources are added to Work Requests during Initial Planning, Detail Planning, and as Unplanned resources during daily Actual Usage reporting. The process to add each of the five resources is the same, regardless of which stage the resource was added.

The following section explains the screens used to add a Contractor resource in SOMS.

All Contractors used for the Work Order, no matter how small the job, must be added to the request plan. If the contract does not require a bid for the work, you may select the Contractor from the list of approved vendors/contractors (Check with PTC Headquarters for the list of Vendors). If the contract is awarded by bid, the approved award will include all of the information needed to add the contractor to the request. It is important to consider both contractor availability and PTC labor scheduling when selecting a vendor/contractor. You will need the following information to add a vendor/contractor to the request:

a. Contractor Name
b. PO Number
c. Materials Request Number
d. Cost of Contracted Work and Materials

Entering Contractors

From the Initial Plan Information form:

1. Click the **Contractor** button. This will display the Contractor Form **(Figure 17.1)**

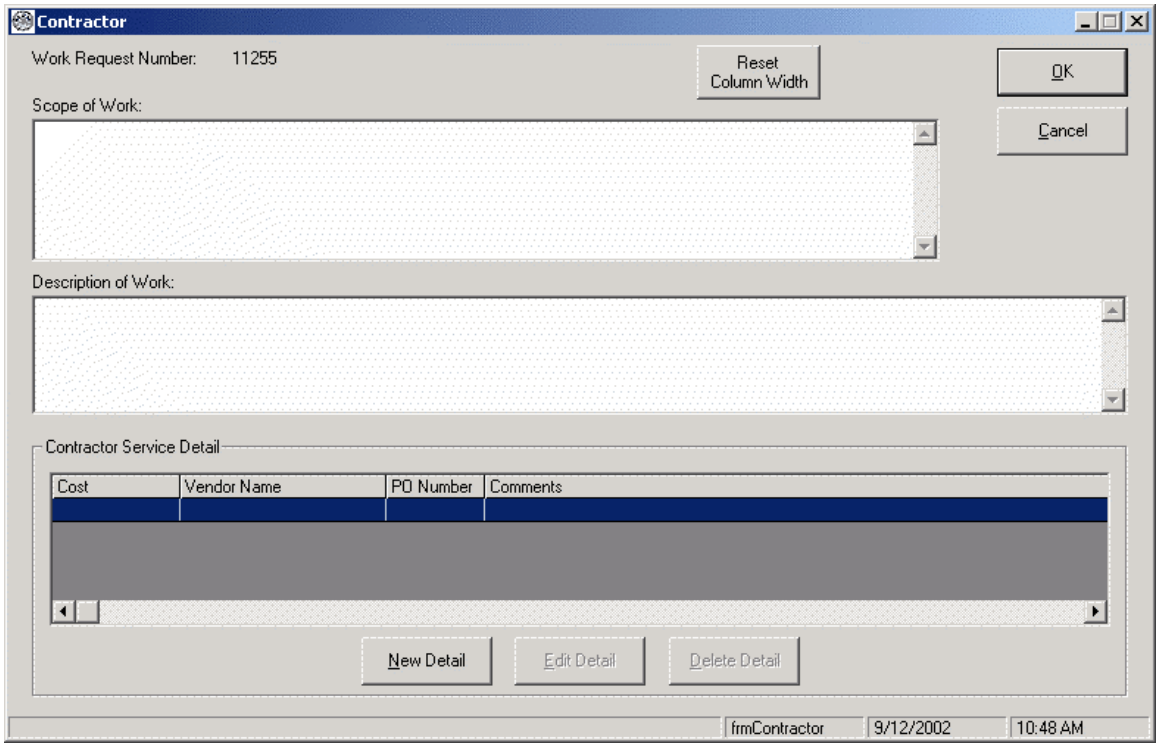


Figure 17.1 - Contractor Form

2. Enter a description of the Scope of Work in the Scope of Work Comments field.
3. Enter a detailed description of the Work the contractor will perform. Include any materials that the contractor will supply as a part of the contract.
4. Click **New Detail**. This will display the Contractor Detail Form. **(Figure 17.2)**

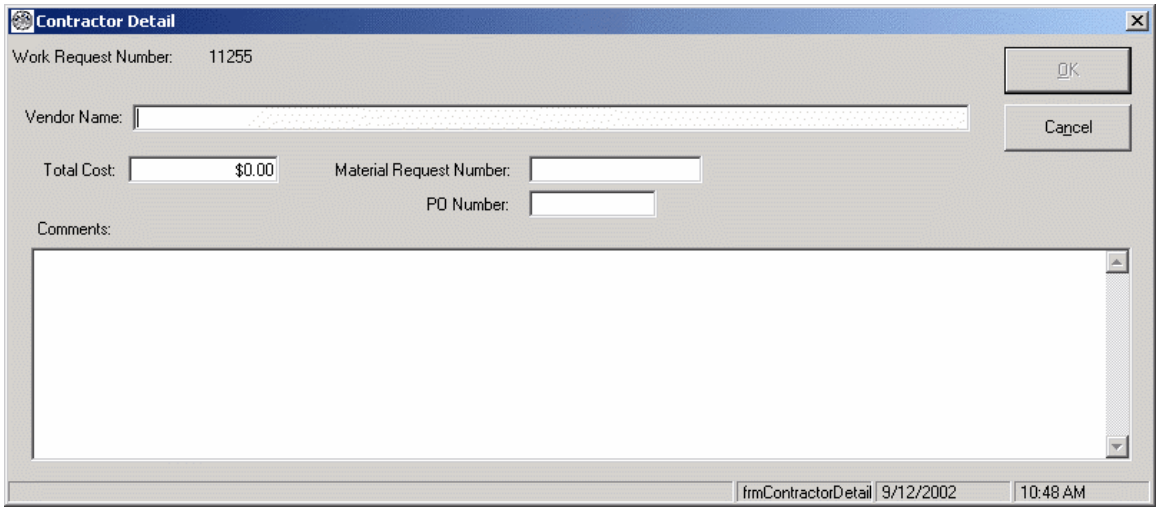


Figure 17.2 - New Contractor Detail

5. Enter the Contractor/Vendor in the Description Textbox.
6. Enter the Total Contract Cost, a Materials Request Number and a PO Number in the appropriate fields. MR and PO Numbers must be manually entered and are for tracking purposes only. There is no automated connection between SOMS and the Purchasing System. The Resource Manager, prior to being released for Scheduling, may do this later. **(Figure 17.3)**

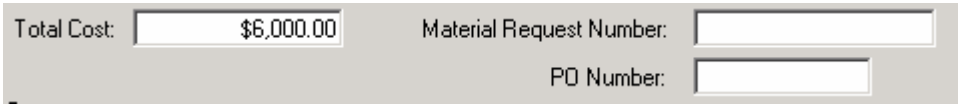


Figure 17.3 - Cost & Request Numbers

7. Enter a detailed description of the contract in the Comments field. **(Figure 17.4)**

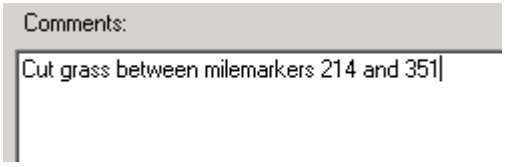


Figure 17.4 - Comments Field

8. Click **OK**. This will close the form and display the Contractor Form. The new contract will appear in the Contractor Service Detail portion of the form. **(Figure 17.5)**

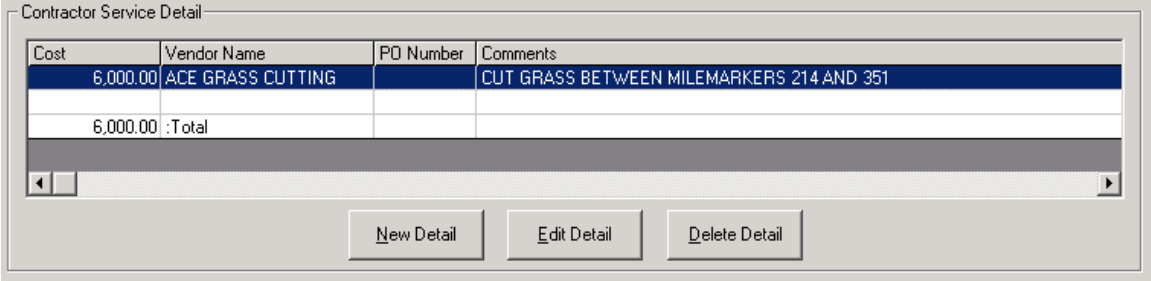


Figure 17.5 - Contract Service Detail

Adding Another Contractor/Vendor to a Request

It may be possible that a project will require multiple Contractors and Vendors. Each Contractor and Vendor must be added to the request separately. To add another Vendor/Contractor to the request:

1. Click **New Detail**. Complete the form as previously described. Add each Vendor/Contractor to the request.
2. When all Vendors and/or Contractor have been added to the request, click **OK** on the Contractor Form. This will close the form and display the Initial Plan Information Form.

Section 18

Closed Work Order Queue

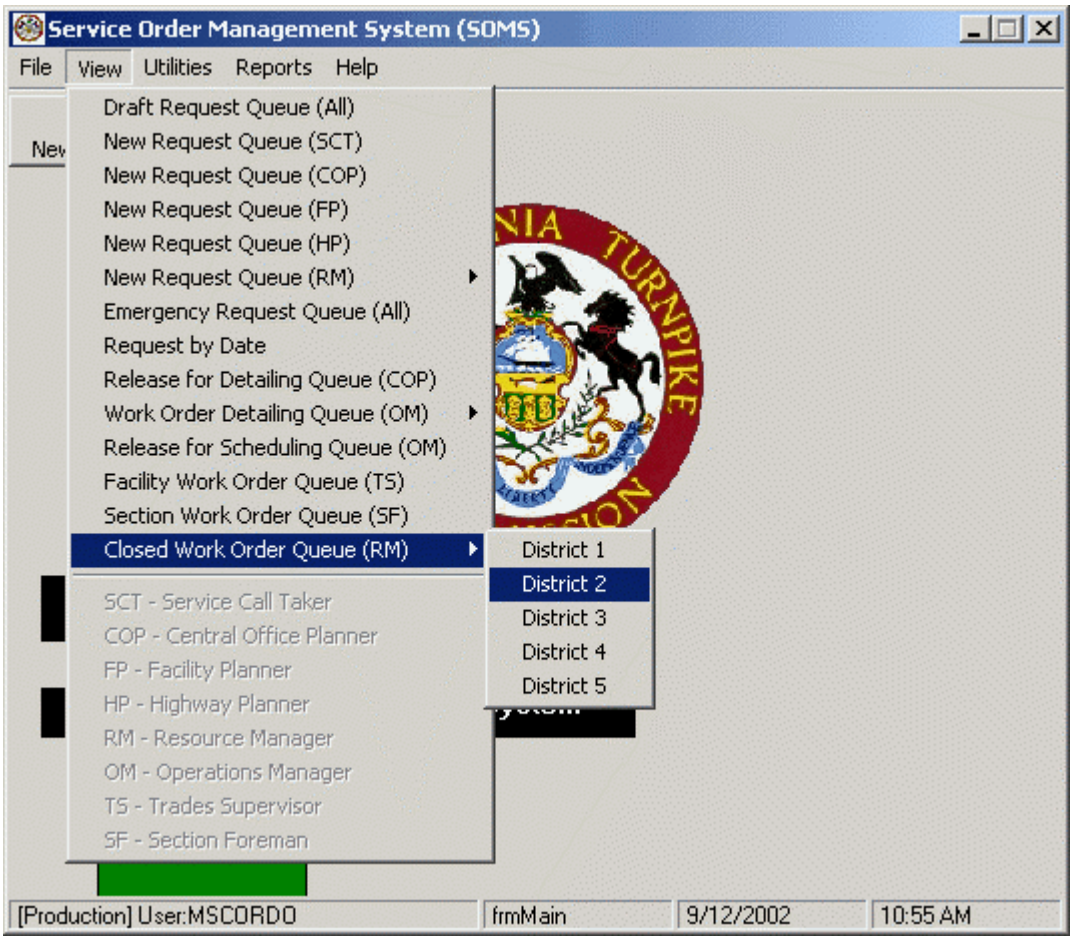


Figure 18.1 – Accessing the Closed Work Order Queue

Once the Work Order is closed, confirmation of the final disposition of all materials used must be completed. For instance, unused portions must be returned and inventoried.

If the Work Order required a minimum of materials, or all materials are clearly accounted for, the work order will automatically be marked Material Closed when it is checked Work Order Closed. It is the responsibility of the Resource Manager manage the disposition of any left over materials as indicated by a variance.

The **Closed Work Order Queue** is available to assist the Resource Manager. It is opened from the Main Screen **Queues** button. It contains a list of all Work Orders that have been closed, but not marked Material Closed. **(Figure 18.2)**

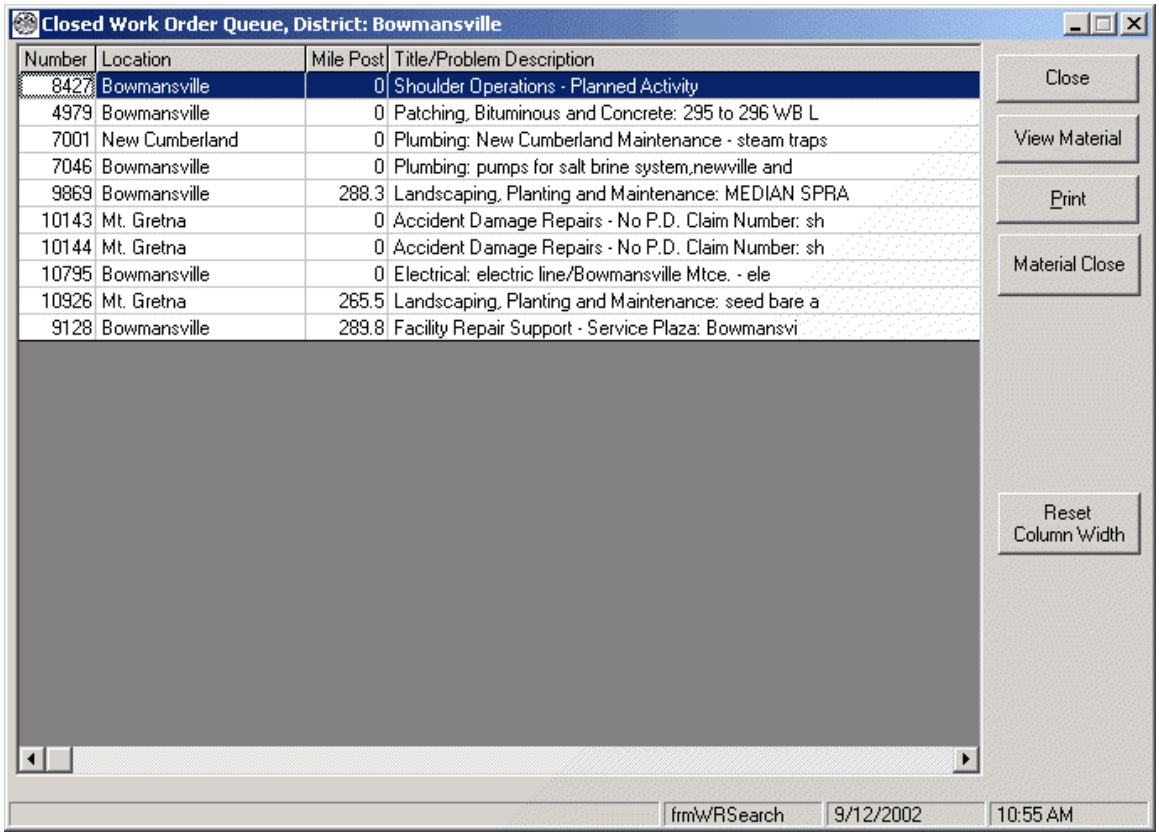

Closed Work Order Queue, District: Bowmansville
Number
Location
Mile Post
Title/Problem Description
8427 Bowmansville 0 Shoulder Operations - Planned Activity
4979 Bowmansville 0 Patching, Bituminous and Concrete: 295 to 296 WB L
7001 New Cumberland 0 Plumbing: New Cumberland Maintenance - steam traps
7046 Bowmansville 0 Plumbing: pumps for salt brine system,newville and
9869 Bowmansville 288.3 Landscaping, Planting and Maintenance: MEDIAN SPRA
10143 Mt. Gretna 0 Accident Damage Repairs - No P.D. Claim Number: sh
10144 Mt. Gretna 0 Accident Damage Repairs - No P.D. Claim Number: sh
10795 Bowmansville 0 Electrical: electric line/Bowmansville Mtce. - ele
10926 Mt. Gretna 265.5 Landscaping, Planting and Maintenance: seed bare a
9128 Bowmansville 289.8 Facility Repair Support - Service Plaza: Bowmansvi
Close
View Material
Print
Material Close
Reset Column Width
frmWRSearch
9/12/2002
10:55 AM

Figure 18.2 - Closed Work Order Queue

Using the Closed Work Order Queue Screen

1. Select a Closed Work Order from the Main Grid.
2. The **Close** button saves your work and closes the Completed Work Order screen.
3. Clicking the **View Material** button will open the Work Order Close screen for the selected Work Order. **(Figure 18.3)**
4. Clicking the Print button will open the Print Control Panel.
5. Clicking the **Material Close** button will mark the Work Order as Material Closed. The Work Order will be removed from this queue within a few seconds.

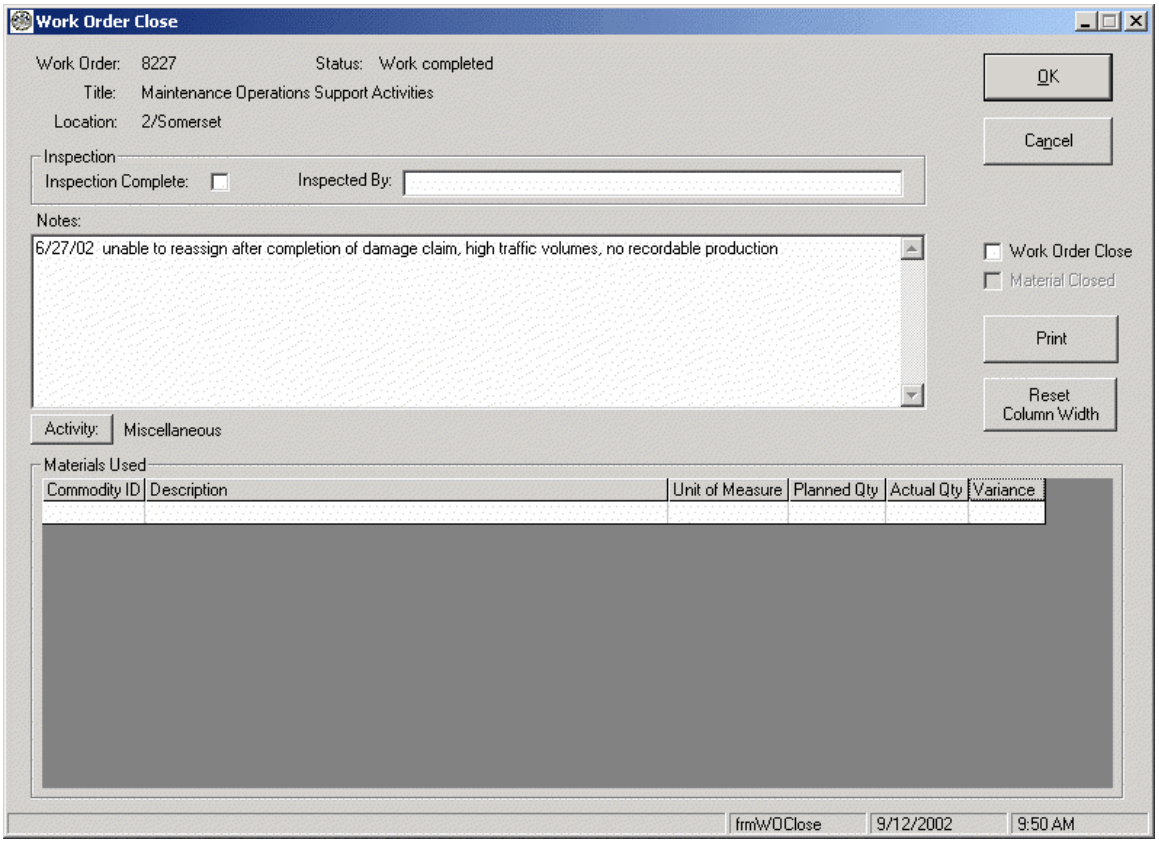


Figure 18.3 - Work Order Close

Using the Work Order Close Screen

The Work Order Close screen lists all materials planned and used for the specified Work Order. It was designed to assist in determining if a Work Order can be marked Material Closed. Several features are available to meet this objective:

1. The Inspection section **(Figure 18.4)**
2. The Materials Used section
   allows the user to compare planned resources to actual usage.
3. The View Work Order Button
   which generates a detailed report on the current Work Order.
4. The Work Order Closed and Material Closed check boxes **(Figure 18.4)**

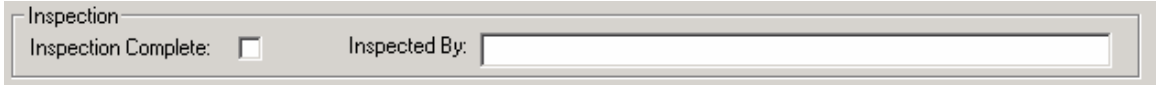


Figure 18.4 - Inspection Section

Figure 18.5 - Close Buttons

Section 19

Person Search

The Person Search screen (**Figure 19.1**) is accessed via the Main Menu - Utilities/Security/People menu options.

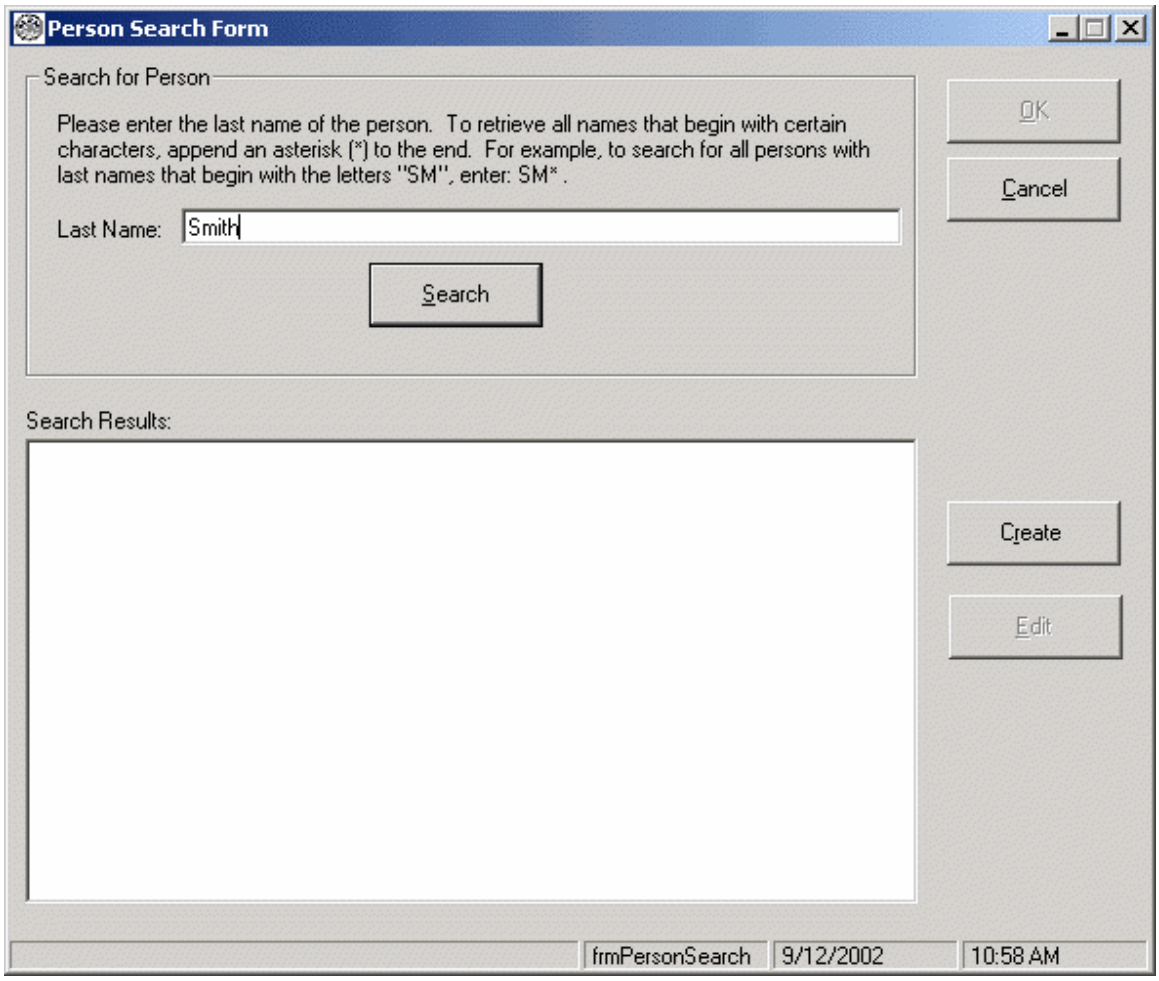

Person Search Form
Search for Person
Please enter the last name of the person. To retrieve all names that begin with certain characters, append an asterisk (*) to the end. For example, to search for all persons with last names that begin with the letters "SM", enter: SM* .
Last Name:
Smith
Search
OK
Cancel
Search Results:
Create
Edit
frmPersonSearch
9/12/2002
10:58 AM

Figure 19.1 – Person Search Screen (Security)

Using Person Search

1. Enter a last name in the Last Name field. You may broaden your search by entering the first few letters of the name followed by an asterisk (*) to display a longer list of possible matches.

2. Click **Search**. This will populate the Search Results field with a list of possible matches.
3. Click the appropriate name from the Search Results list.
4. Click **OK**. This will assign the Requester to the current Work Request.
5. If the **Search** returns more than one matching name, or for any other reason you need to verify Requester information, click **Edit**. This displays the Edit Person form, which contains detailed information on the name selected. **(Figure 19.2)** A list of telephone numbers is also given in the Phone Numbers field. Make any necessary changes and click **Ok**, or simply click **Cancel** to return to the previous screen.

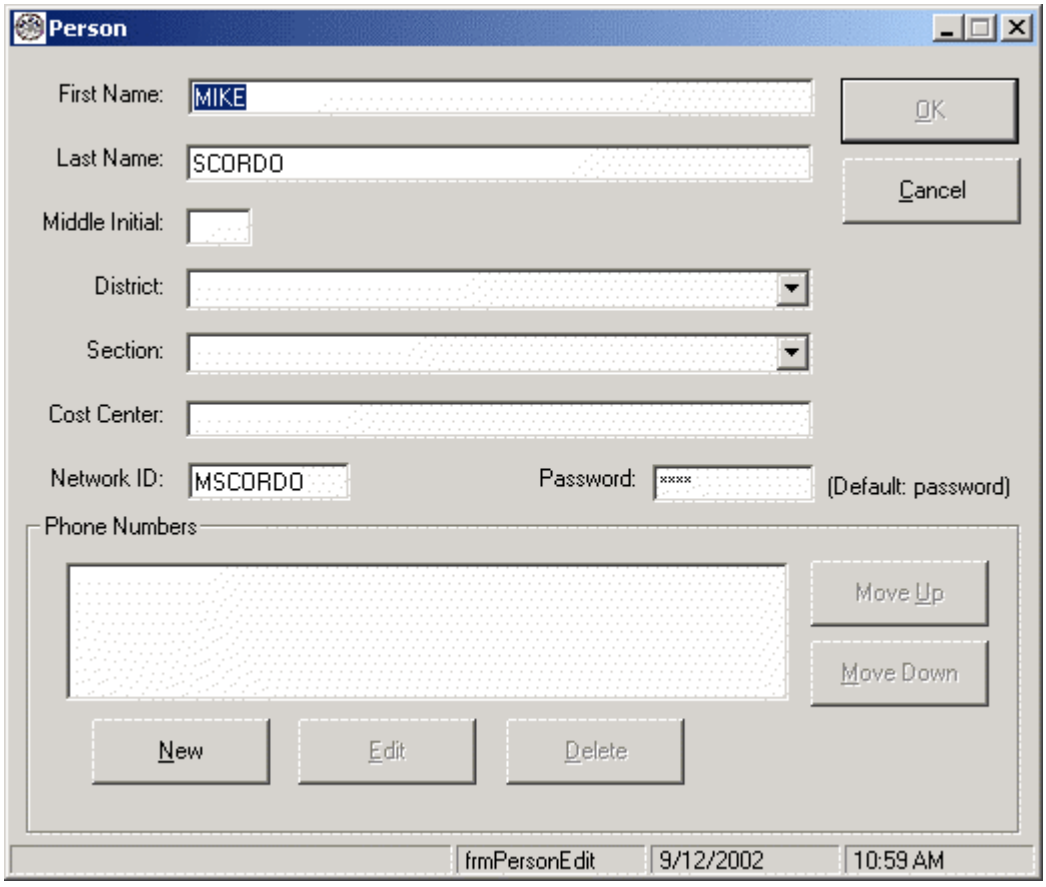


Figure 19.2 - Person Screen

Using Person Screen

The Person Screen is used to define a person. A person can be only used as a requestor and therefore no location or network information is required so only first, last and middle names need to be specified. People needing to use the application can be set up by

Administrators giving them a Network ID and password for using when logging into the application.

New user passwords default to the new user default password of 'password'.

Adding Phone Numbers

The **Phone Numbers** section of the Person Screen contains several buttons to be used when applying phone numbers to a person.

1. **New** – This button opens the Phone Information screen for adding a new phone number. **(Figure 19.3)** Enter the phone number and extension, and then select the number description from the dropdown list.
2. **Edit** – This button is locked until a number is selected from the **Phone Numbers** list box. It opens the Phone Information screen for editing the number, extension, and description of the selected Phone Number.
3. **Delete** – This button is locked until a number is selected from the **Phone Numbers** list box. It will remove the selected phone number from the list.
4. **Move Up** - This button is locked until a number is selected from the **Phone Numbers** list box. It will move the selected number up one place in the list, identifying the preferred number for persons that have more than one.
5. **Move Down** - This button is locked until a number is selected from the **Phone Numbers** list box. It will move the selected number down one place in the list, identifying the preferred number for persons that have more than one.

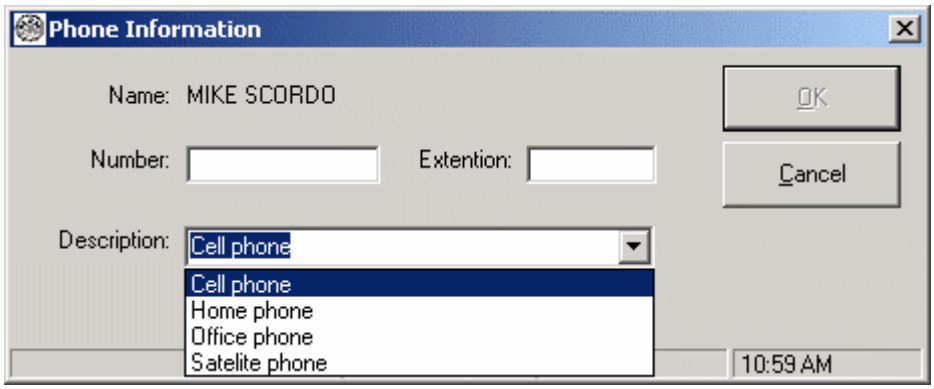


Figure 19.3 Phone Information

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Section 20

Work Request Detail Screens

Actual Information Tab

When a work order has been released for scheduling, a new tab will appear within the work request editing screen showing actual labor, material, equipment, tools and notes recorded against the work order (**Figure 20.1**). To view a work order, use any screen with an **Edit** button to open the work order or use the **File Open** menu option.

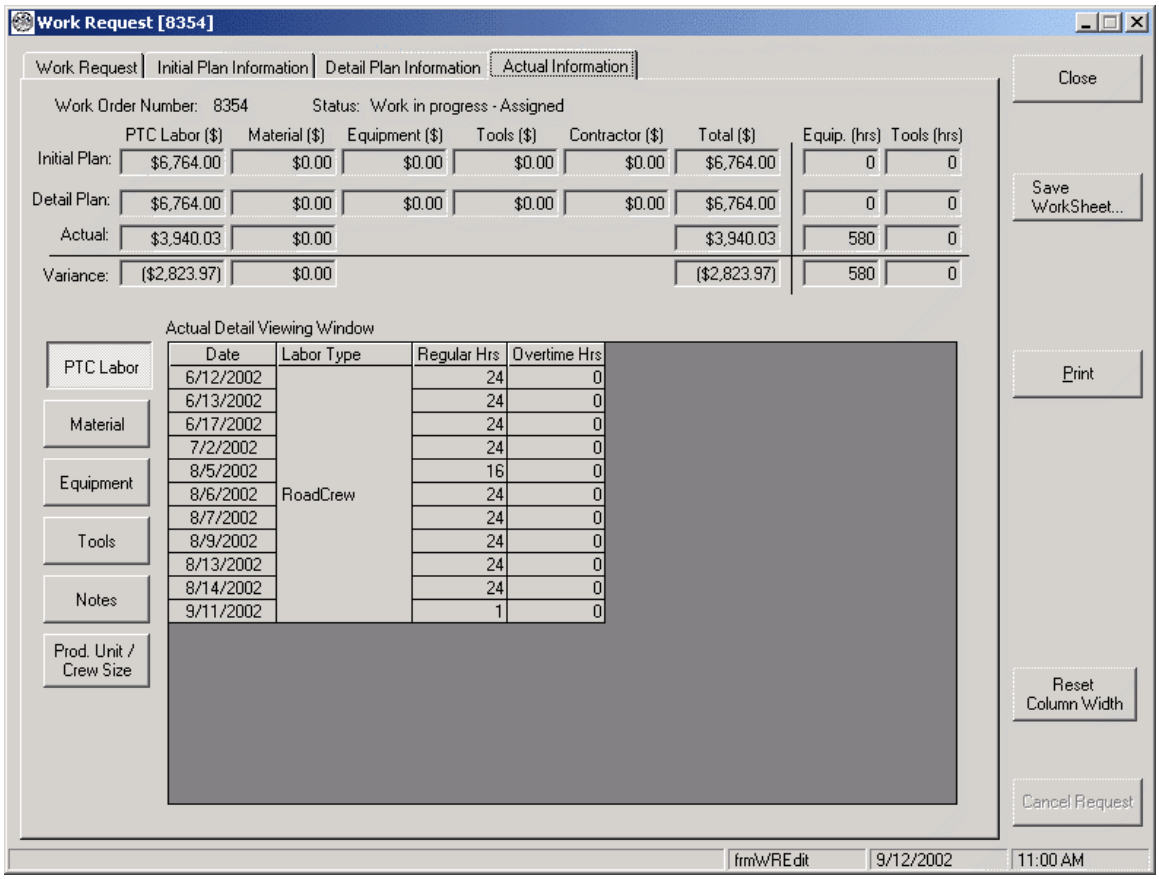

Figure 20.1 – Actual Usage Information Tab

All of the work recorded against a given work order can be viewed by choosing one of the resource buttons shown on the left. (**Figure 20.1**) Cost information is depicted in the upper portion of the Actual Information tab.

Section 21

Security (Logon, Read/Write Abilities)

The queues and screens that will be available to each SOMS user depend on his assigned role. The Maintain Roles screen is used by the Administrator to assign those Roles. It is also used to establish Security Levels for those Roles, identifying which screens may be edited, or which functions may be used on the various screens.

To facilitate the assignment of large groups of people to any particular role, the ability to create groups is available. Once a group is assigned it's role, any user added to that group will automatically assume the same role and security level.

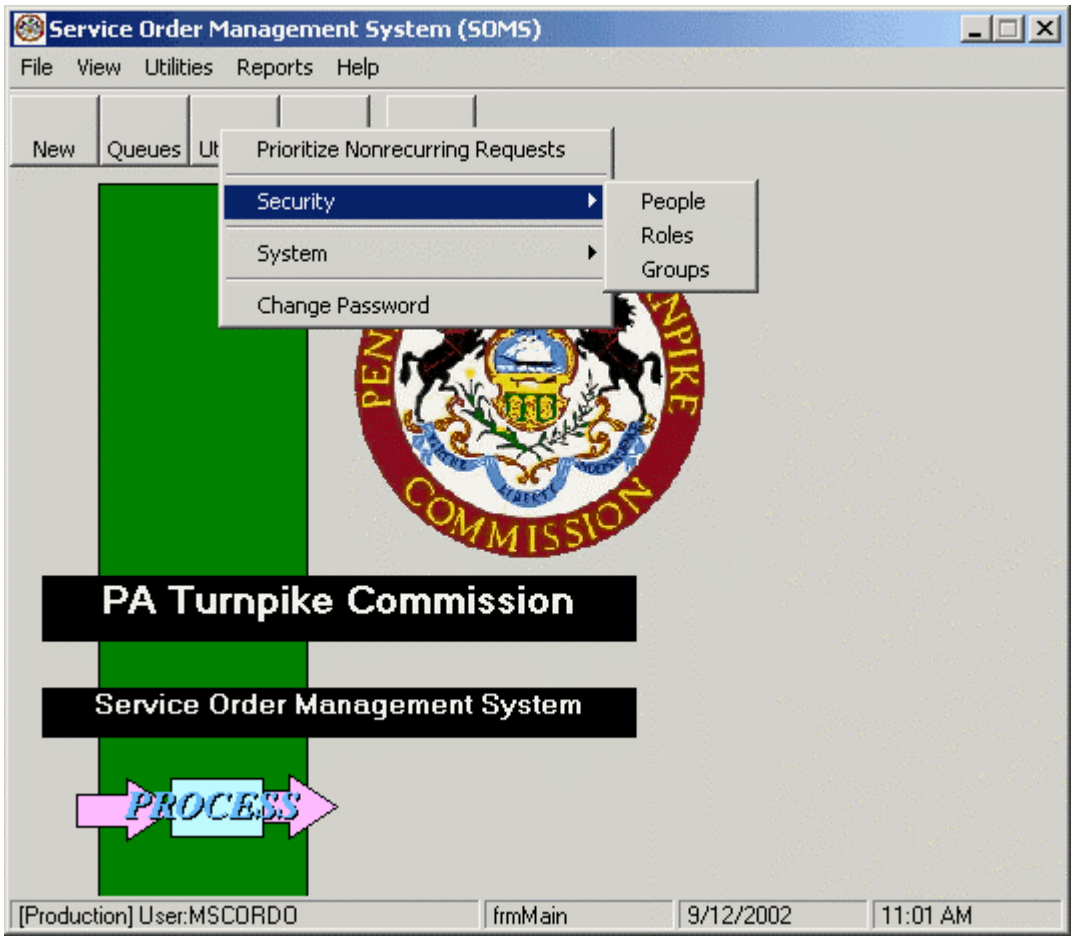

Figure 21.1 - Accessing the Security Screens

The Maintain Roles screen and the Groups screen can be opened from the **Utilities** button on the Main screen. **(Figure 21.1)**

Using the Maintain Roles Screen

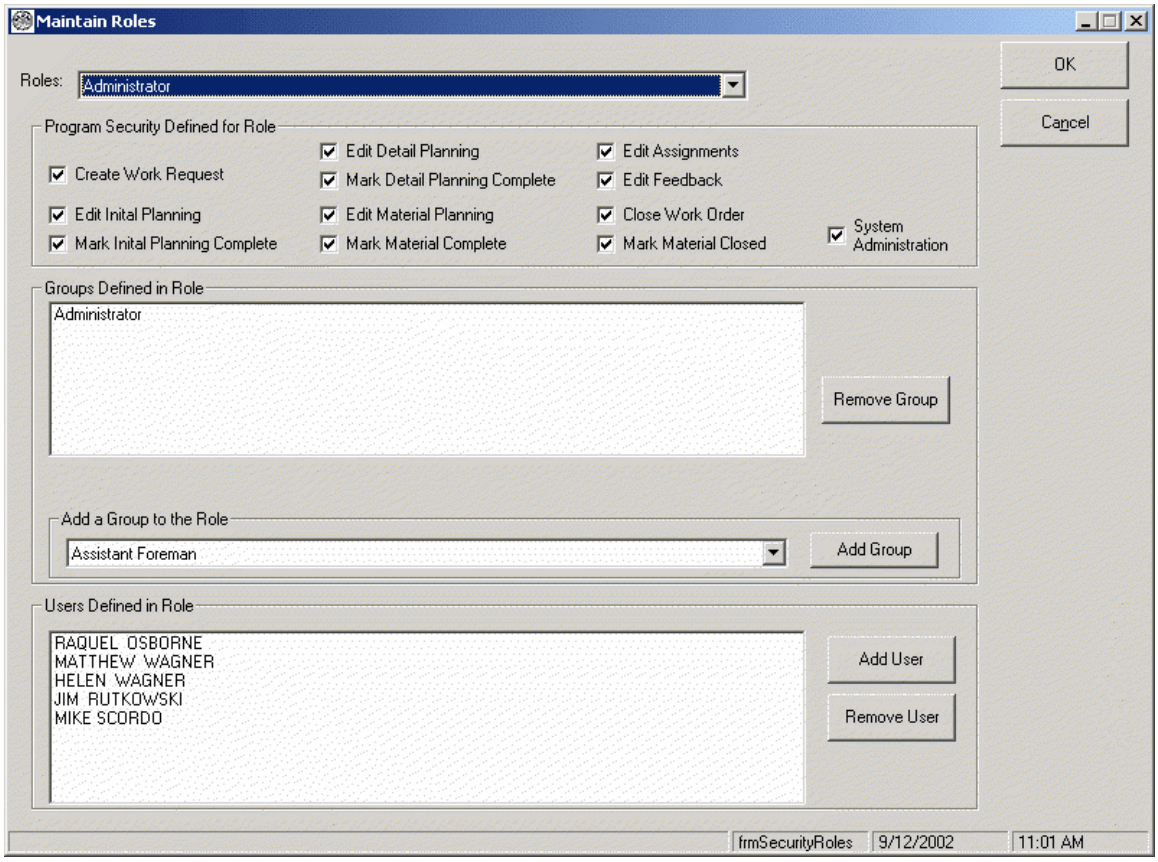

Figure 21.2 - Maintain Roles

The Maintain Roles screen is broken into several sections for ease of use.

Roles

There are a fixed set of possible roles that each user may assume. These roles define which Queues and Screens will be available from the Main screen. It is possible for a person to be assigned to more than one role, so use caution when making these assignments.

OK and **Cancel** buttons are available to save your work, or exit the screen without saving.

Begin using the Security screen by first selecting the Role you wish to work with from the **Roles** dropdown box. **(Figure 21.3)**

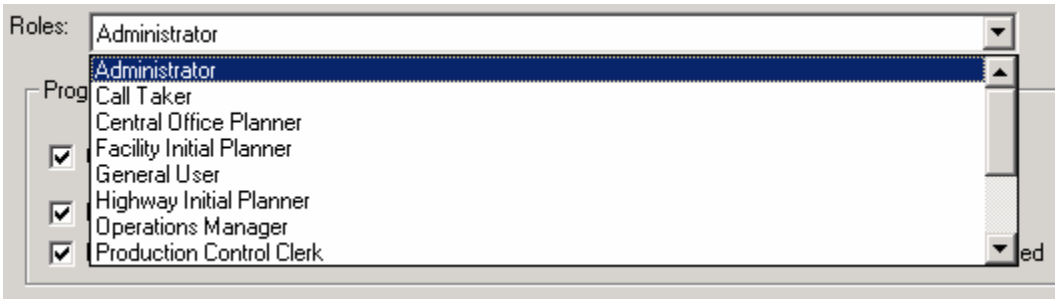

Figure 21.3 - Select Role

Program Security defined for Role

The Queues and Screens available to each user are fixed for each Role. The functions performed in those screens, however, can be modified in this section. Select from the choices listed to define what functions will be available to persons assigned to the selected Role. **(Figure 21.4)**

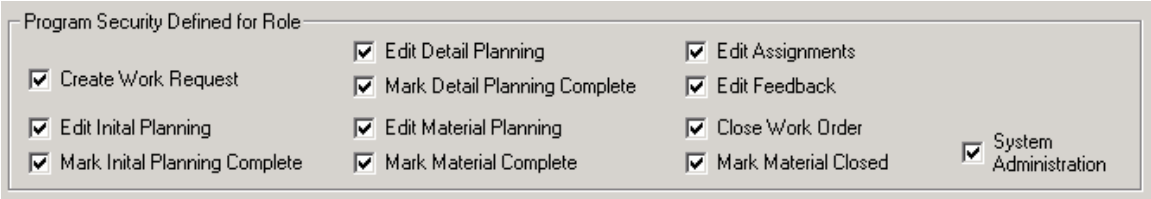

Figure 21.4 - Program Security defined in Role

Groups Defined in Role

This section displays each of the Groups assigned to the selected Role. **(Figure 21.5)**

6. Selecting a group from this section will activate the **Remove Group** button, allowing groups to be removed.
7. Groups can be added by selecting from the **Add a Group to the Role** dropdown box, then clicking the **Add Group** button.

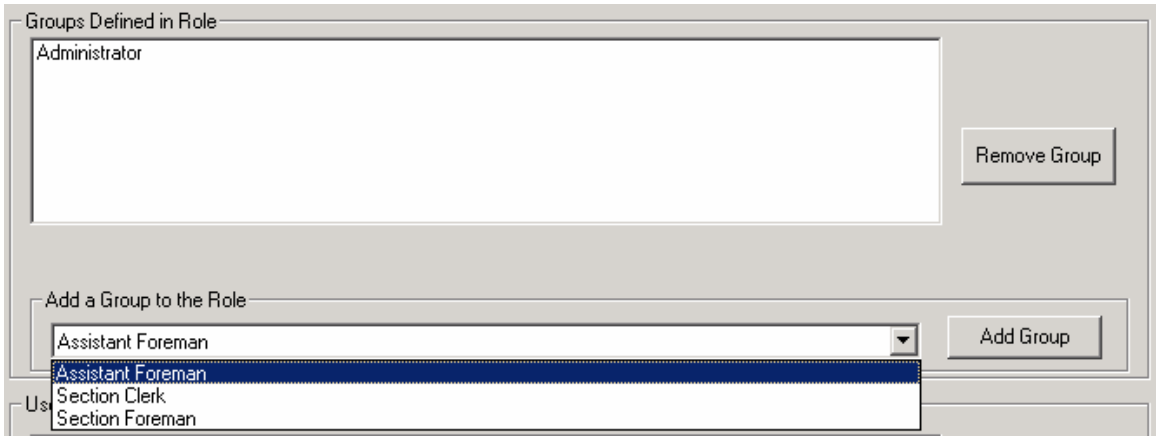

Figure 21.5 - Groups Defined in Role

Users Defined in Role

This section is used to add or remove individual users from the selected Role. **(Figure 21.6)**

1. The **Remove User** button is locked until a user is selected from the list.
2. The **Add User** button opens the Person Search screen, described in Section 17, to select the user to be added to the selected Role.

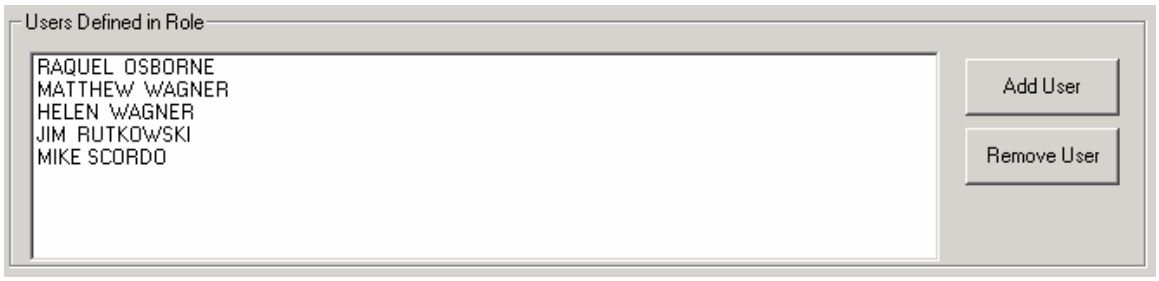

Figure 21.6 - Users Defined in Role

Maintain Groups

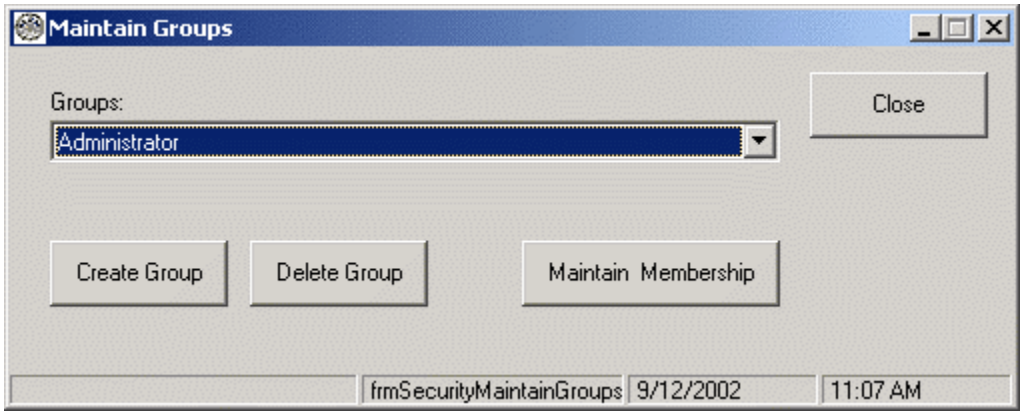

Figure 21.7 - Maintain Groups

The Maintain Groups screen contains one dropdown list box and four buttons.

Groups List Box

This dropdown list box displays all of the groups available.

Create Group

Clicking the Create Group button prompts the user for a Group name, then adds that to the list in the **Groups** dropdown list box. **(Figure 21.8)**

The group contains no members when it is created.

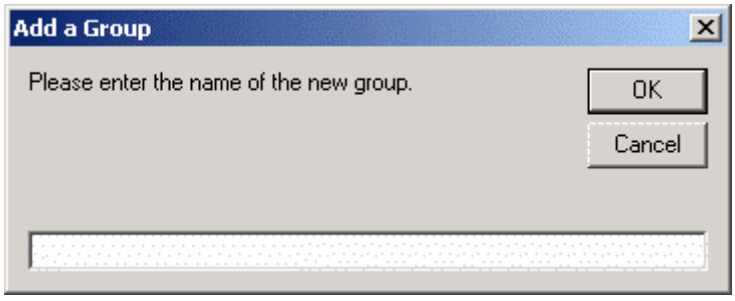

Figure 21.8 - Add a Group

Delete Group

This deletes the group from the **Groups** dropdown list box. It will automatically remove the group from any Roles that it had been assigned to.

Close

This closes the Maintain Groups screen.

Maintain Membership

This opens the Maintain Group Membership screen. **(Figure 21.9)** The group for which this screen is associated appears in the top left corner of the Screen.

1. The **OK** button will save your work and close the screen.
2. The **Cancel** button will close the screen without saving.
3. The **Show Security** button produces a report showing what roles and groups the current group may already be assigned to.

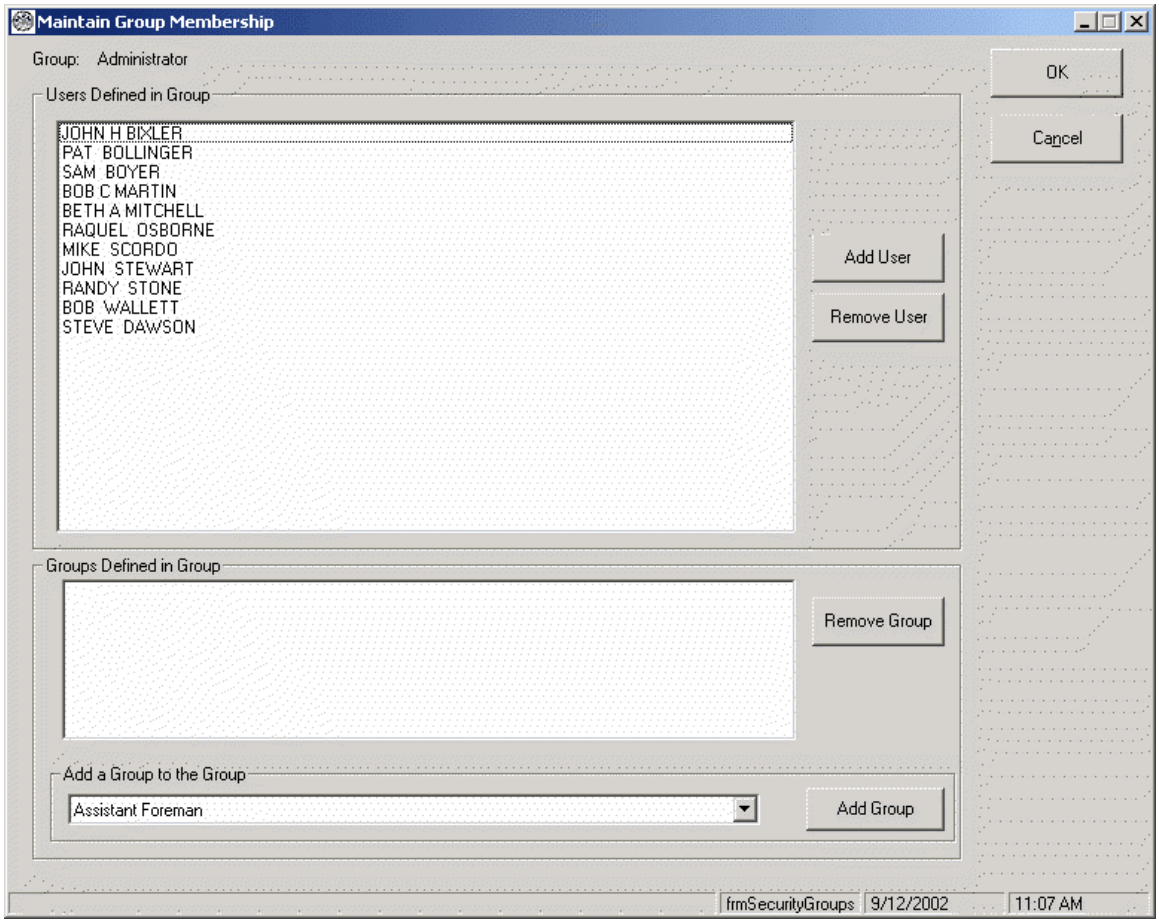

Figure 21.9 - Maintain Group Membership

Users Defined in Group

This section lists all individual users belonging to this group.

1. The **Add User** button opens the Person Search screen to select a user to be added to this group.
2. The **Remove User** button will remove the selected group member from the group.

Groups Defined in Group

For maximum flexibility and convenience, SOMS allows an entire group to be a member of another group. This allows all members of one group to instantly be granted the privileges of a 'parent' group.

1. The **Groups Defined in Group** list box displays all groups currently belonging to this group.
2. The **Remove Group** button removes the group selected in the **Groups Defined in Group** list.
3. The **Add a Group to the Group** dropdown list box displays all groups available to become a member of this group.
4. The **Add Group** button adds the group selected in the **Add a Group to the Group** field to the **Groups Defined in Group** list.

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Section 22

Facility Non-Recurring Title List Maintenance

The list of acceptable Non-Recurring Titles for facility work requests can be maintained within the SOMS application via the System maintenance menus (**Figure 22.1**) under Facility/Acceptable NonRecurring Titles. When selected the Facility Non-Recurring Titles maintenance screen will be displayed (**Figure 22.2**). This list of titles populates the list of New Work Request titles for Facility type requests.

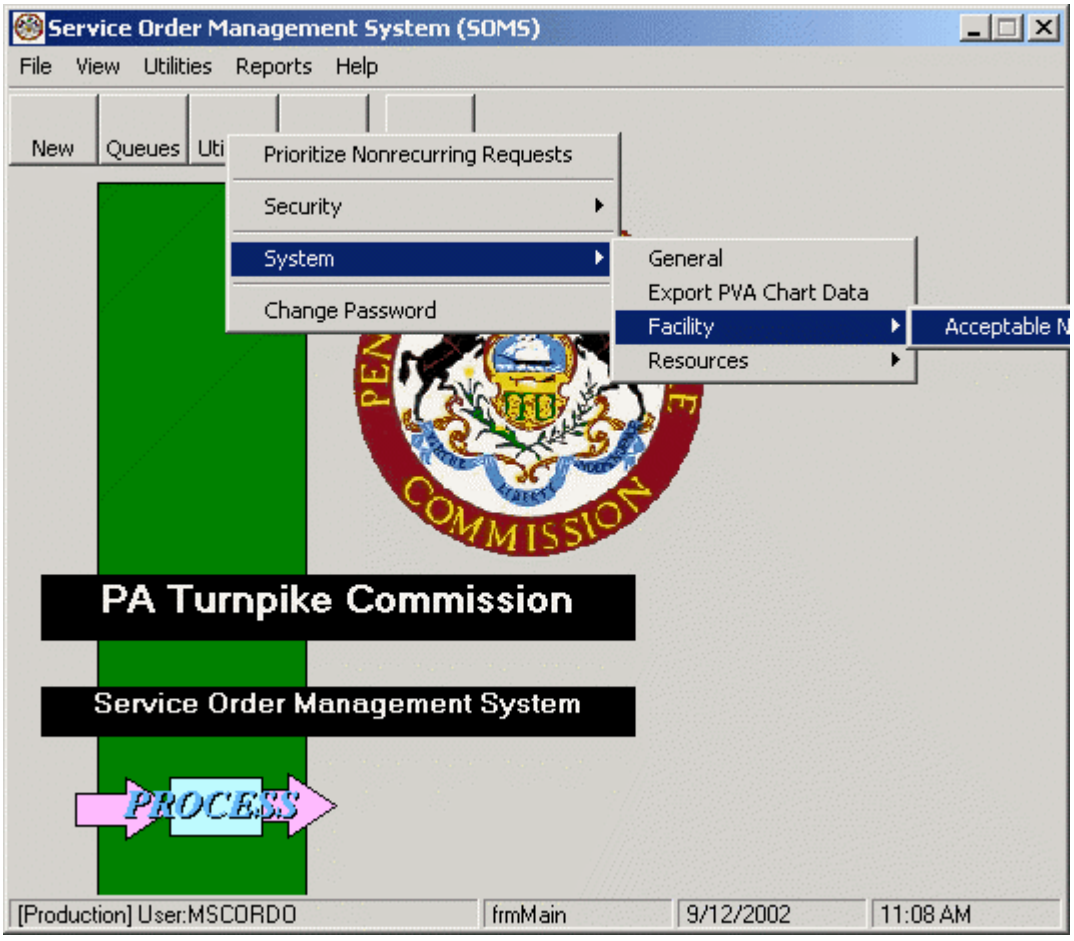

Figure 22.1 – Selecting Facility Non-Recurring Title Maintenance

Adding a Title

1. Select **Add** (**Figure 22.2**) to open the Non-Recurring Title screen (**Figure 22.3**) in Add Mode.
2. Enter a new title in the title field.
3. Select **OK** to save the new title to the list or select **Cancel** to discard the new title.

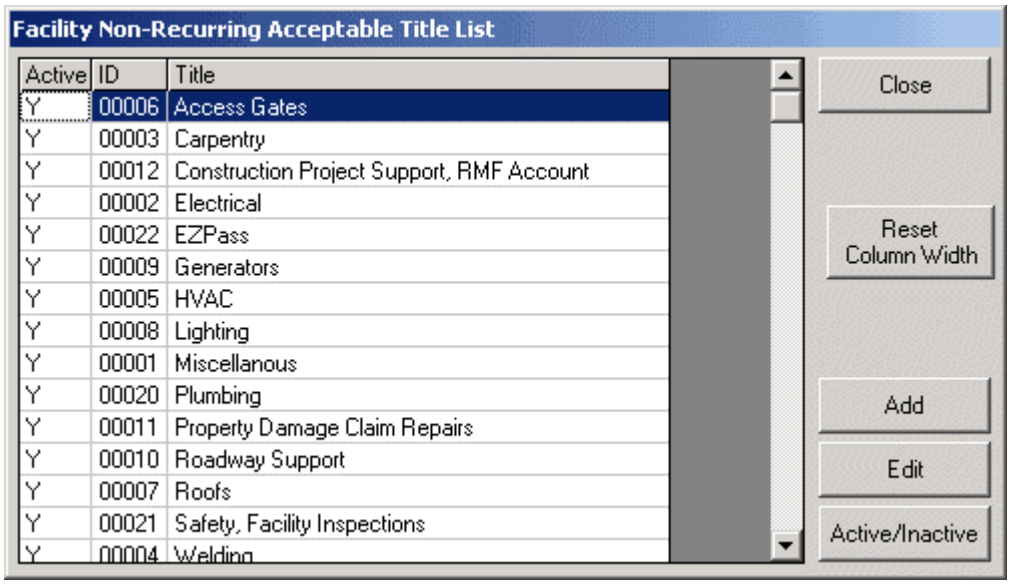

Figure 22.2 - Facility Non-Recurring Acceptable Title List Maintenance

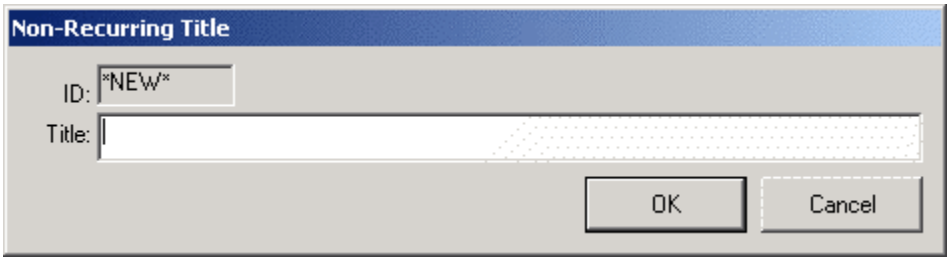

Figure 22.3 - New Non-Recurring Title

Editing a Non-Recurring Title

1. Select the title to be edited and then select **Edit** (**Figure 22.2**) to open the Non-Recurring Title screen (**Figure 22.4**) in Edit Mode.
2. Edit the title in the title field.

3. Select **OK** to save the changes to the list or select **Cancel** to discard the changes.

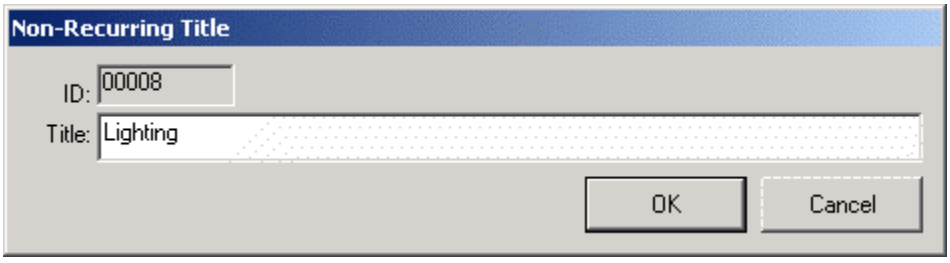

Figure 22.4 - Edit Non-Recurring Title

Activating/Inactivating Titles

In order to support all work order records, Titles can not be deleted from the system. Instead, a Title can be marked Inactive to preclude it from appearing in the New Request Titles list.

1. Select the desired title and then select **Active/Inactive** (**Figure 22.2**) to toggle the Active flag for the title. When set to **N** the title will not appear in the New Work Request Titles list.
2. Select Close to close the screen and return to the Main Menu.

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Section 23

Maintain Commodity Tables

The list of commodity codes can be maintained within the SOMS application via the System maintenance menu (**Figure 23.1**) under Resources/Maintain Commodity Tables. When selected the Maintain Commodity Tables maintenance screen will be displayed (**Figure 23.2**).

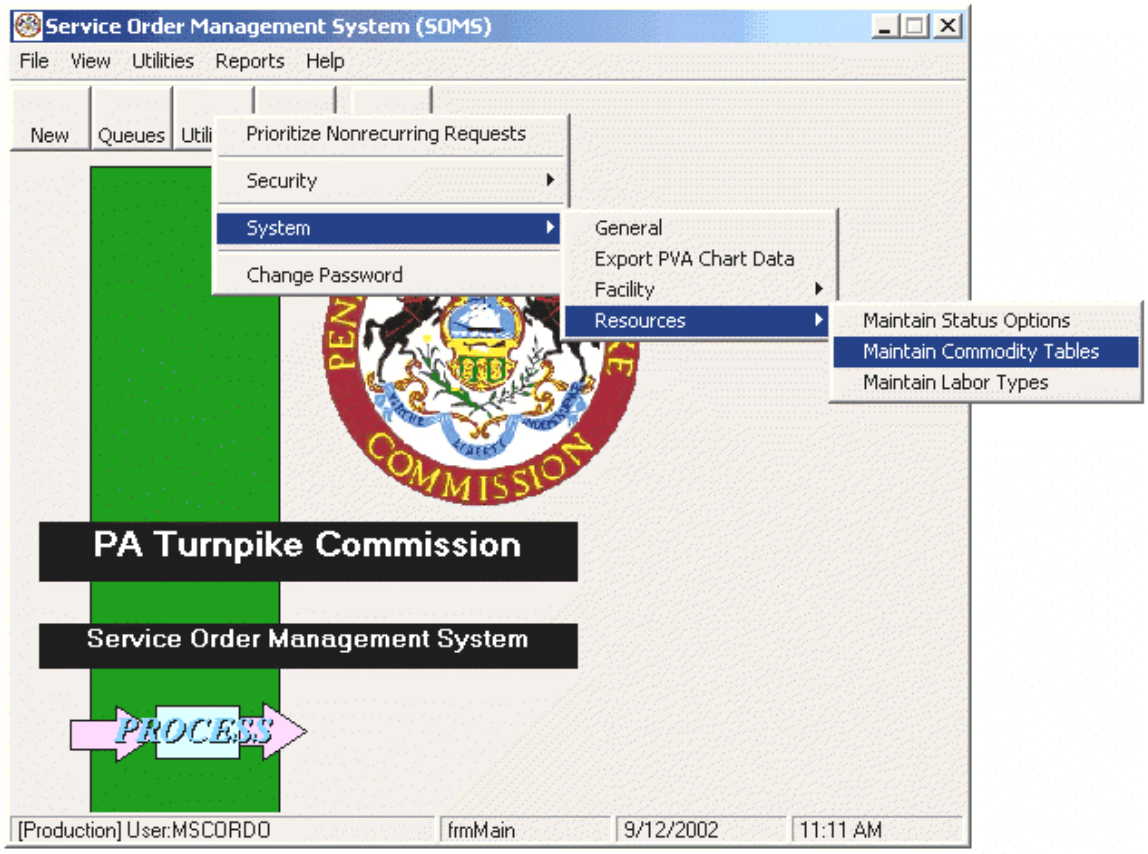

Figure 23.1 - Selecting Maintain Commodity Tables

Using the Commodity Maintenance Screen

The Maintain Commodity Tables screen (**Figure 23.2**) provides the user with a complete list of all the Commodity ID's stored within the SOMS database. From this screen the user is able to Add, Edit, or Inactivate any commodity item. The screen is composed of

four main areas and also controls opening one detail screen. The main screen controls are:

1. Search fields – At the top of the screen are three fields for entering a standard Commodity ID in 123-45-6789 format (Group/Class Code – SubClass Code – Item Code). Enter as much of the ID as known. These fields are used with the Find button.

2. Find button – Selecting **Find** will execute a search for the commodity ID entered in the search fields.

3. Clear Search – Selecting **Clear Search** will blank the Search fields.

4. Close – Selecting **Close** will return you to the Main Menu.

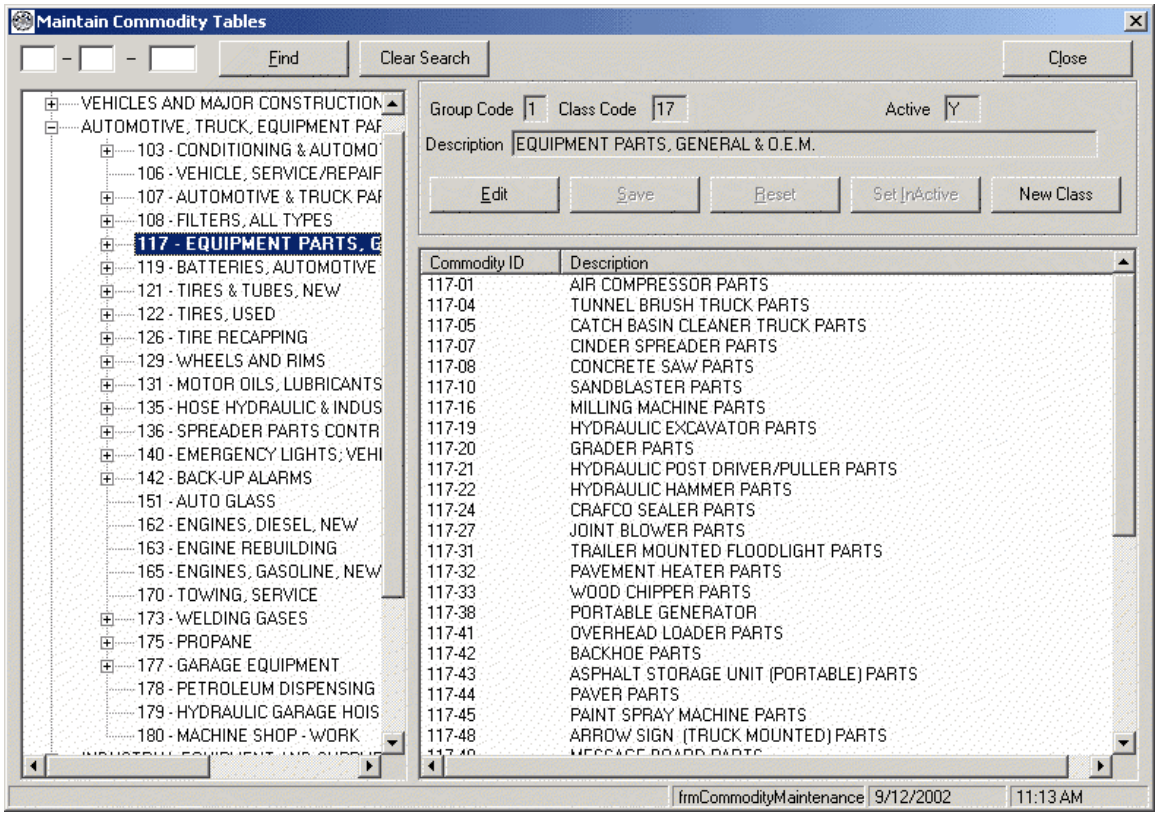

Figure 23.2 - Maintain Commodity Tables

5. Left Treeview – This list expands and collapses to display the commodity heirarchy beginning with the ten major Groups. Within each group are one or more Classes. Within each Class are one or more SubClasses

6. Edit Box – In the upper right portion of the screen is a collection of controls for maintaining the Group, Class, and SubClass entries.

7. Right List Box – In the lower right portion of the screen is a listbox that will display the level of codes below the level selected in the Left Treeview.

Figure 23.3 depicts Group/Class 117 selected in the Left Treeview. The class description for Class 17 of Group 1 is displayed in the Description field of the the Edit Box. The List Box displays all of the SubClasses belonging to Group/Class 117. Selecting one of the SubClasses would load it's information into the Edit Box fields and enable the New Item button (**Figure 23.4**).

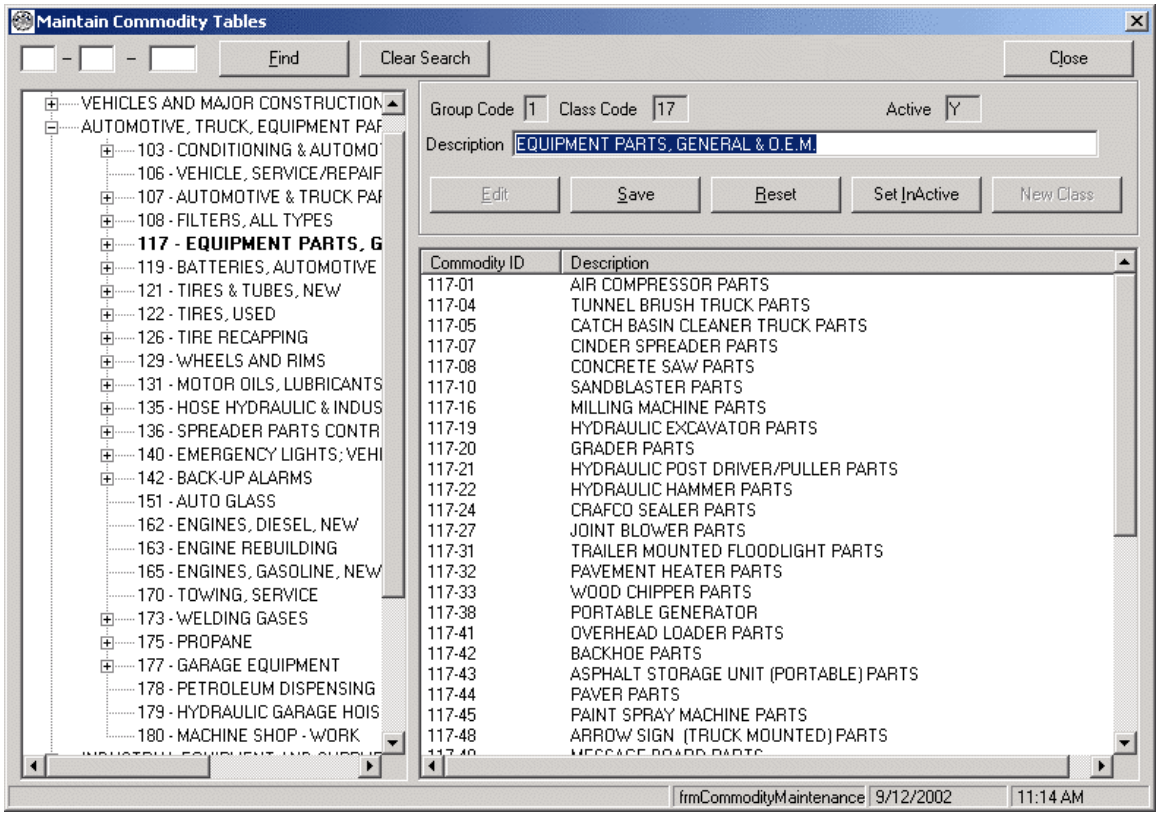

Figure 23.3 – Commodity Maintenance Screen Class Mode

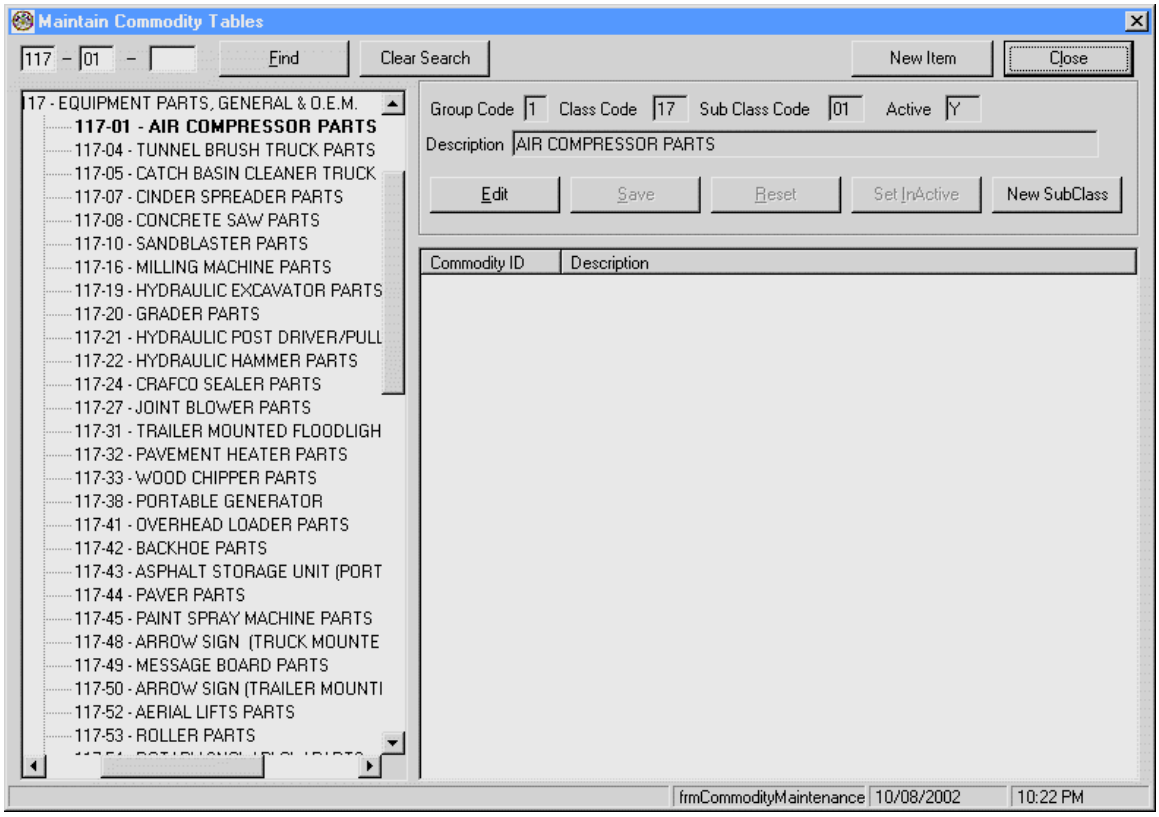
Maintain Commodity Tables
117 - 01 -
Find
Clear Search
New Item
Close
17 - EQUIPMENT PARTS, GENERAL & O.E.M.
117-01 - AIR COMPRESSOR PARTS
117-04 - TUNNEL BRUSH TRUCK PARTS
117-05 - CATCH BASIN CLEANER TRUCK
117-07 - CINDER SPREADER PARTS
117-08 - CONCRETE SAW PARTS
117-10 - SANDBLASTER PARTS
117-16 - MILLING MACHINE PARTS
117-19 - HYDRAULIC EXCAVATOR PARTS
117-20 - GRADER PARTS
117-21 - HYDRAULIC POST DRIVER/PULL
117-22 - HYDRAULIC HAMMER PARTS
117-24 - CRAFCO SEALER PARTS
117-27 - JOINT BLOWER PARTS
117-31 - TRAILER MOUNTED FLOODLIGH
117-32 - PAVEMENT HEATER PARTS
117-33 - WOOD CHIPPER PARTS
117-38 - PORTABLE GENERATOR
117-41 - OVERHEAD LOADER PARTS
117-42 - BACKHOE PARTS
117-43 - ASPHALT STORAGE UNIT (PORT
117-44 - PAVER PARTS
117-45 - PAINT SPRAY MACHINE PARTS
117-48 - ARROW SIGN (TRUCK MOUNTE
117-49 - MESSAGE BOARD PARTS
117-50 - ARROW SIGN (TRAILER MOUNTI
117-52 - AERIAL LIFTS PARTS
117-53 - ROLLER PARTS
Group Code 1 Class Code 17 Sub Class Code 01 Active Y
Description AIR COMPRESSOR PARTS
Edit
Save
Reset
Set InActive
New SubClass
Commodity ID
Description
frmCommodityMaintenance
10/08/2002
10:22 PM

Figure 23.4 – Commodity Maintenance Screen Subclass Mode

Adding an Item Code

Figure 23.5 depicts the new item code screen.

1. Enter a new Item Code in the Item Code field. On exiting the field a validation process will ensure duplicate entries are not created and code numbers are formatted correctly.
2. Enter the Item's description in the Description field. Ensure the first line is not blank.
3. Enter the standard Unit of Measure for this item. This unit of measure will be displayed when this item is assigned to a work order.
4. Enter the standard Unit Cost for this item. This unit cost will be referenced when this item is used on a work order.
5. Enter the manufacturers part number for this item if known.
6. Enter any additional comments regarding the procurement or use of this item as necessary. These comments will be displayed when this item is assigned to a work order.

7. Select **Save** to save this item to the database or **Reset** to erase the entry.
8. Select **New** to enter another item for this Subclass or select **Close** to return to the Commodity Maintenance Screen.

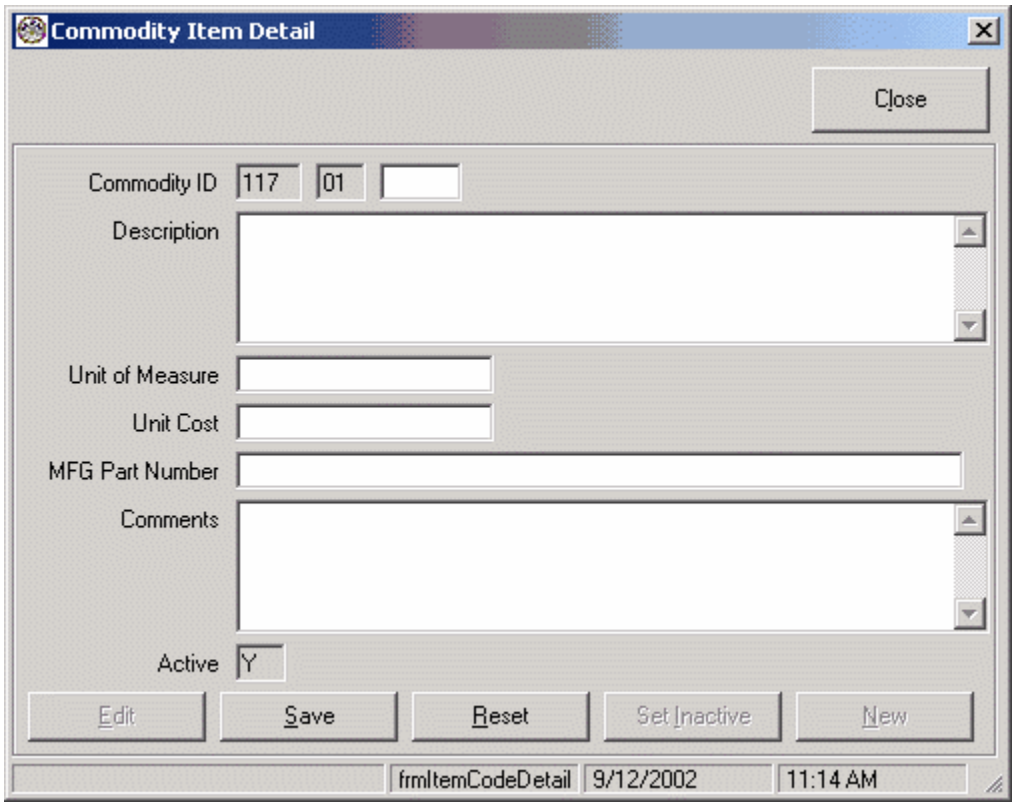

Figure 23.5 - New Commodity Item Detail Screen

Editing an Item Code

Select (or double click) the Item code to edit from the List Box (Figure 23.4) and then select Edit from the Edit Box controls. This will open the Commodity Item Detail screen as shown in Figure 23.6.

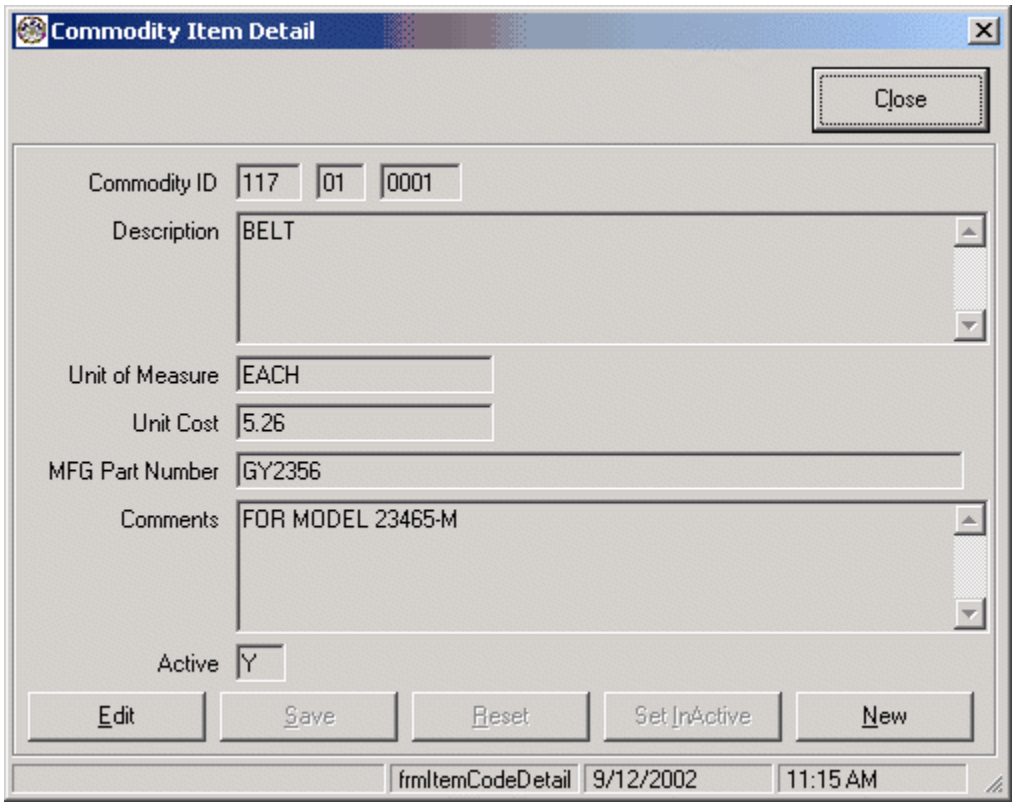

Figure 23.6 View Commodity Item Detail

Selecting **Edit** from the Item Detail screen will enable the fields for editing the Item Code Detail information as shown in **Figure 23.7**. Edit the information as necessary and select **Save** to save the changes.

Set Item Code Inactive

Setting an Item Code inactive will preclude it from being displayed in the item code lists presented to the users when assigning new resources on work orders. If the item code is in use on an existing work order, it will still display if that work order is edited. In this way any existing use of the item code is still supported but it is not available to be used on any new requests. To inactivate an Item Code, edit the item code and select **Set Inactive** from the Commodity Item Detail screen (**Figure 23.7**).

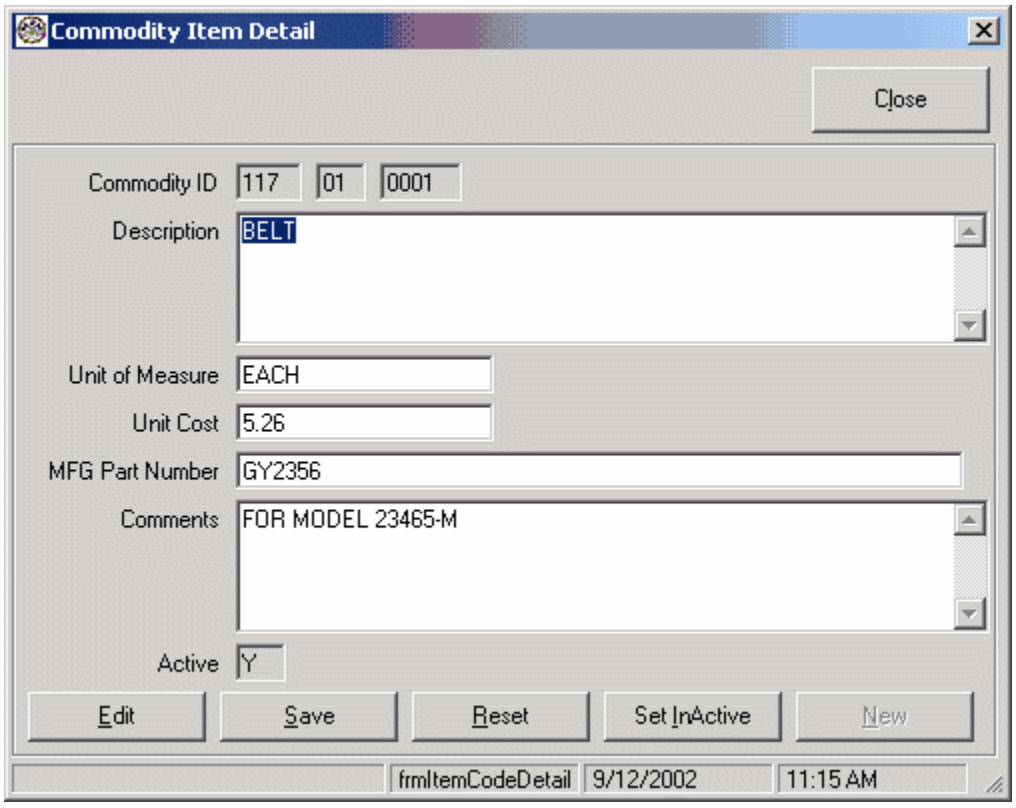

Figure 23.7 Edit Commodity Item Detail

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Section 24

Maintain Labor Types

The list of labor types and labor rates can be maintained within the SOMS application via the System maintenance menu (**Figure 24.1**) under Resources/Maintain Labor Types. When selected the Labor Types maintenance screen will be displayed (**Figure 24.2**).

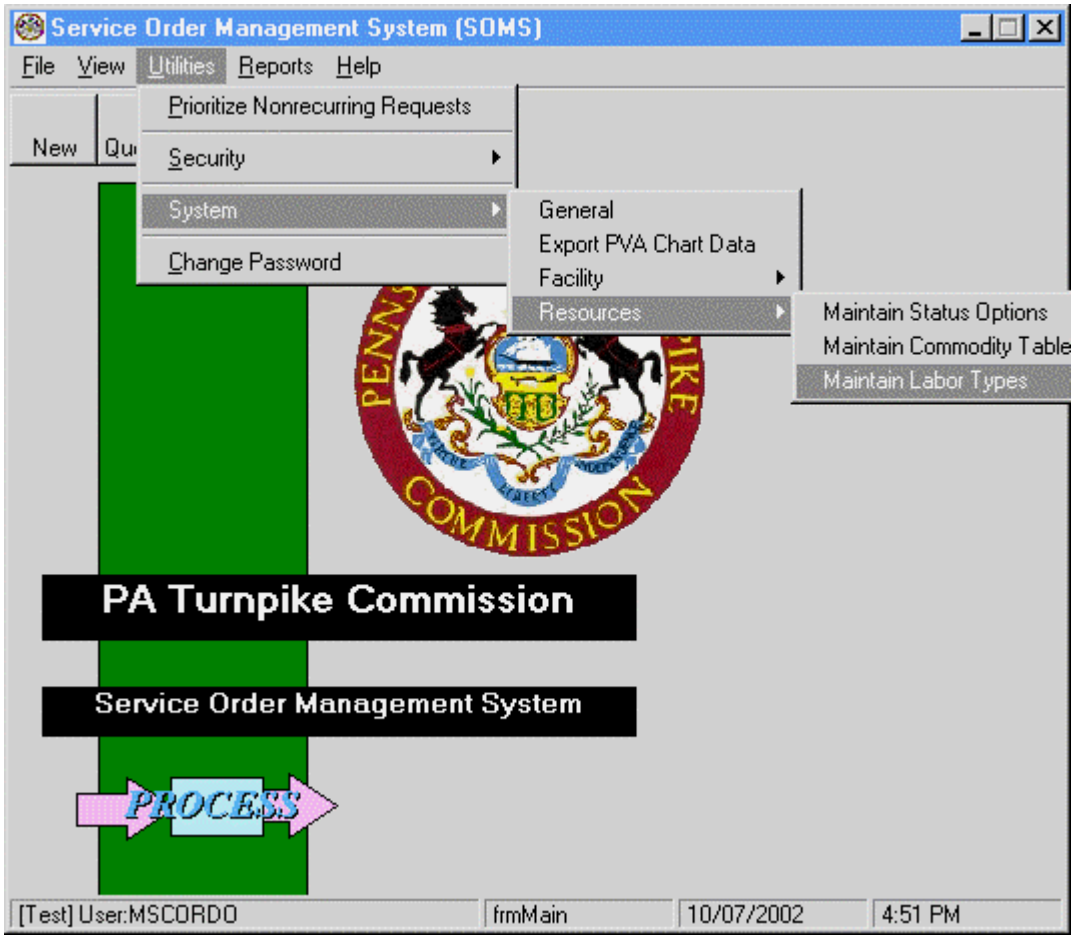

Figure 24.1 - Maintain Labor Types

Creating Labor Type Records

Labor Type records are created by the Annual Planning System Work Order Conversion and Generation process. Each set of Labor records is identified by it's fiscal year value. Only the current fiscal year records are able to be edited, should the rates change mid-year. Prior years records are displayed for historical purposes.

Editing Labor Type Records

4. Select the row to be edited (**Figure 24.2**) from the list. Eligible rows will have a white background and current fiscal year value.
5. Enter the new Regular Time Rate in the Rate field.
6. Click **Compute O.T.** to calculate a simple time and a half overtime rate, or enter the desired overtime rate in the O.T. Rate field.
7. Set the Type of Work this labor rate is to be used on. Separate labor rate records are required if the same labor type is needed for both types of work.
8. Edit the permissions for the selected labor rate.
    a. Use for Initial Planning – Enables this labor type to be used for Initial Planning, normally checked.
    b. Use for Detail Planning – Enables this labor type to be used for Detail Planning, normally checked.
    c. Use for Recording Actual Usage – Enables this labor type to appear on the Section or Trade queue Reporting mode Labor tab, normally checked.
    d. Display in Assignment List – Enables this labor type to appear on the Section or Trade queue Planning mode Labor tab, normally checked.
    e. Can Change Number Assigned – Enables this labor type as a type that can be assigned on the Section or Trade queue Planning mode Labor tab, normally checked.
9. Select **Save Change** to commit the changes to this Labor Type record or Select **Cancel Change** to undo the changes to this Labor Type record.
10. The column widths in the list can be adjusted to suit the user's personal preference and the new widths will be remembered from session to session. Use the **Reset Column Widths** button to restore the column widths to their default widths.
11. Select **OK** to close the screen and return to the Main Menu.

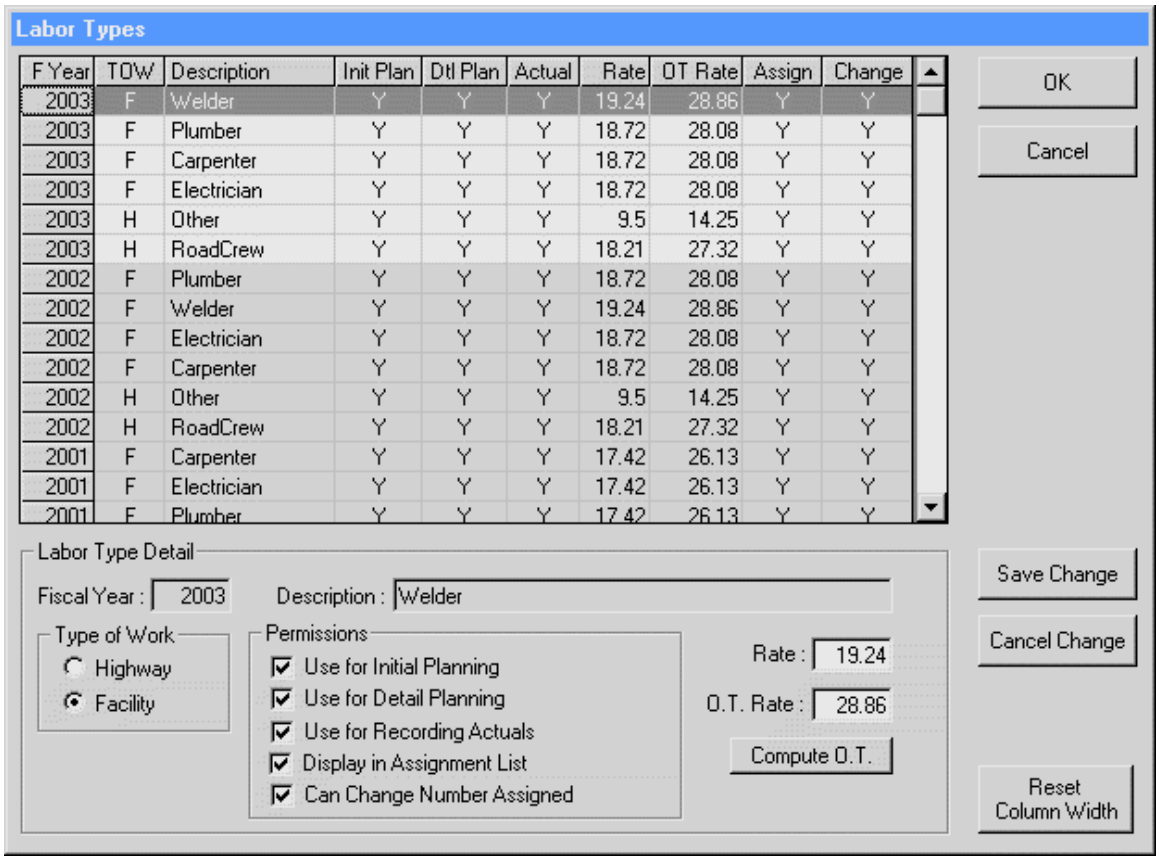
Labor Types
F Year
TOW
Description
Init Plan
Dtl Plan
Actual
Rate
OT Rate
Assign
Change
2003 F Welder Y Y Y 19.24 28.86 Y Y
2003 F Plumber Y Y Y 18.72 28.08 Y Y
2003 F Carpenter Y Y Y 18.72 28.08 Y Y
2003 F Electrician Y Y Y 18.72 28.08 Y Y
2003 H Other Y Y Y 9.5 14.25 Y Y
2003 H RoadCrew Y Y Y 18.21 27.32 Y Y
2002 F Plumber Y Y Y 18.72 28.08 Y Y
2002 F Welder Y Y Y 19.24 28.86 Y Y
2002 F Electrician Y Y Y 18.72 28.08 Y Y
2002 F Carpenter Y Y Y 18.72 28.08 Y Y
2002 H Other Y Y Y 9.5 14.25 Y Y
2002 H RoadCrew Y Y Y 18.21 27.32 Y Y
2001 F Carpenter Y Y Y 17.42 26.13 Y Y
2001 F Electrician Y Y Y 17.42 26.13 Y Y
2001 F Plumber Y Y Y 17.42 26.13 Y Y
OK
Cancel
Labor Type Detail
Fiscal Year : 2003
Description : Welder
Type of Work
Highway
Facility
Permissions
Use for Initial Planning
Use for Detail Planning
Use for Recording Actuals
Display in Assignment List
Can Change Number Assigned
Rate : 19.24
O.T. Rate : 28.86
Compute O.T.
Save Change
Cancel Change
Reset Column Width

Figure 24.2 - Labor Types Maintenance Screen

Section 25

Plan vs Actual Reports

The program contains Plan vs Actual reports for both Highway and Facility maintenance. The reports are available in different views as described below.

Highway PVA Reports

The Highway report is avaiable in 3 versions, Turnpike Wide, District, or Section. All of the Highway versions contain both production and cost information within the same report. To access the report, select Reports from the Main Menu and then Plan vs Actual. This will open the Plan Vs Actual Report Section Screen (**Figure 25.1**).

1. Select Highway in the Type of Work field (**Figure 25.1**).
2. For a Turnpike Wide report, set District to All
3. For a District report, choose the desired District Number in the District field.
4. For a Section report, choose the desired District Number in the District field and then Choose the desired Section from the Section field.

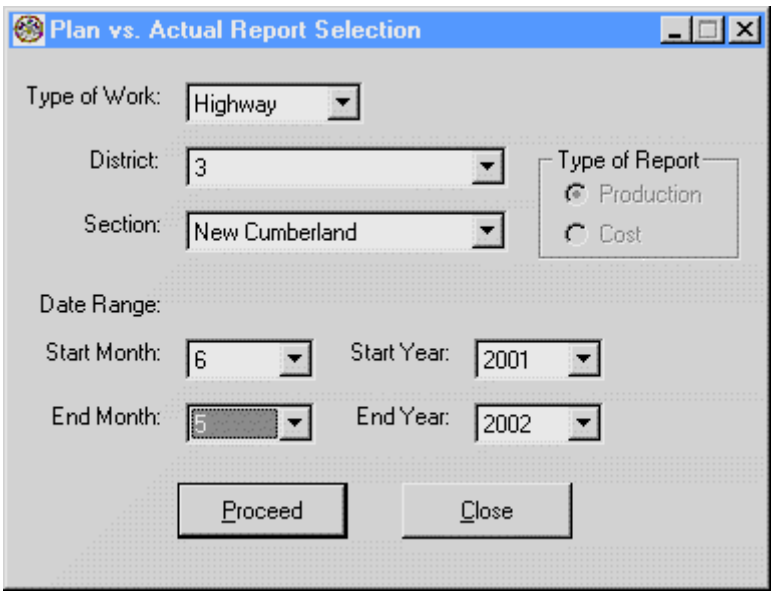

Figure 25.1 – Plan vs Actual Report Control Panel

5. Select the proper date range for the report. The PVA report will assimilate data over any time frame from the beginning of SOMS to the present. It can report on as short as a 1 month time period.

6. Select **Proceed** to begin processing the report.

7. A minimized Crystal Report window will open and populate when the report is prepared. The report can be reviewed and printed from this window.

Facility PVA Reports

The Facility report is avaiable in 2 versions, Turnpike Wide and District. Each version is available in two views, Production and Cost. To access the report, select Reports from the Main Menu and then Plan vs Actual. This will open the Plan Vs Actual Report Section Screen (**Figure 25.2**).

8. Select Facility in the Type of Work field (**Figure 25.2**).

9. For a Turnpike Wide report, set District to All

10. For a District report, choose the desired District Number in the District field.

11. Select the desired view in the Type of Report box, Production or Cost.

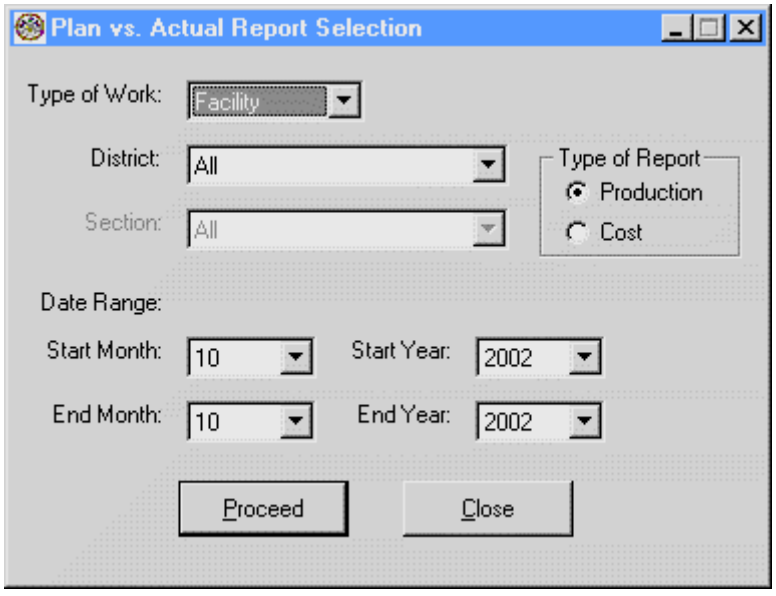

Figure 25.2 - Plan vs Actual Report Control Panel

12. Select the proper date range for the report. The PVA report will assimilate data over any time frame from the beginning of SOMS to the present. It can report on as short as a 1 month time period.

13. Select **Proceed** to begin processing the report.

A minimized Crystal Report window will open and populate when the report is prepared. The report can be reviewed and printed from this window.

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Section 26

Expenditure Reports

The SOMS program contains a unique Expenditure report that provides a preformatted view of maintenance costs grouped by commonalities. The report is available in a Turnpike Wide view, District view, and Section view. Within the report data is shown for the selected month and Fiscal Year to Date (selected month).

Accessing the Expenditure Reports

Select Reports from the Main Menu and then Expenditure. This will open the Expenditure Report Section Screen (**Figure 26.1**).

1. Select the Type of Report desired in the Type of Report box (**Figure 26.1**).
2. If a Section report is selected, choose the desired section from the Section field.
3. Select the desired month for the report by choosing a year and month from the date fields.
4. Select proceed to begin processing the report. **Note**: Due to the large volume of data being analyzed and the variations in server loads, this report can take in excess of twenty minutes to run.

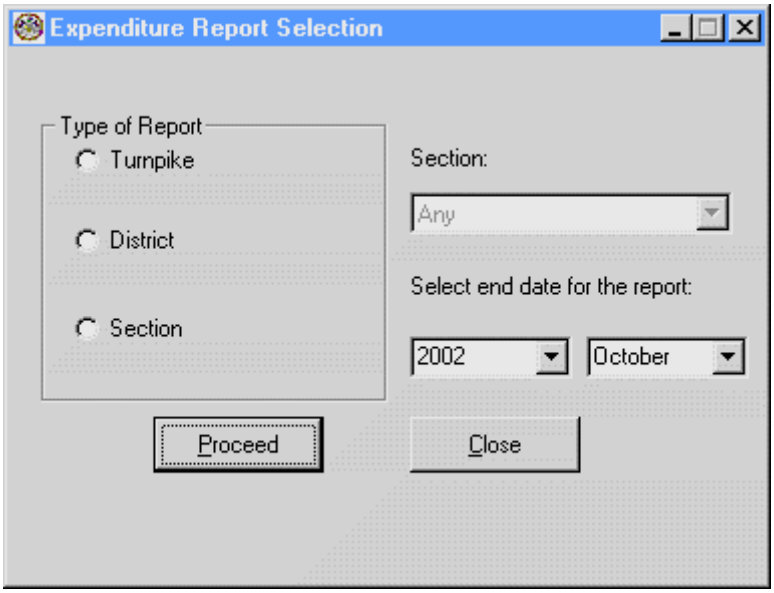

Figure 26.1 – Expenditure Report Control Panel

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Section 27

Resource Reports

The Resource Report generator is an interactive wizard that allows the user to create many different reports from a few selection panels.

Accessing the Resource Reports

Select Reports from the Main Menu and then Resource. This will open the Resource Report Wizard (**Figure 27.1**). Select **Next** to continue or **Cancel** to exit and return to the Main Menu.

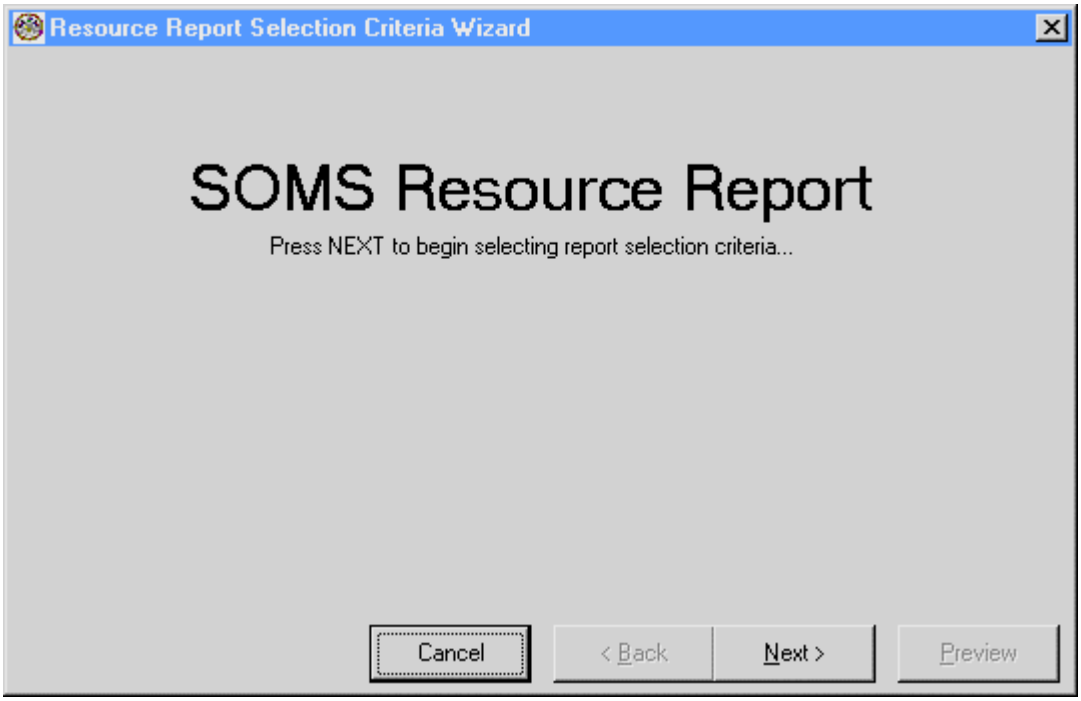


Figure 27.1 - Resource Report Wizard

Selecting Report Criteria

The Type Panel

The Type panel (**Figure 27.2)** contains the primary set of criteria that will determin which resource report to generate. One of the four Resource types must be chosen. A Type of Work must be selected to indicate Highway or Facility maintenance. Lastly, choose an option from the Report Driven By: choices. These choices will vary based upon the Resource Type and Type of Work selected.

Select **Next** to continue or **Cancel** to exit and return to the Main Menu.

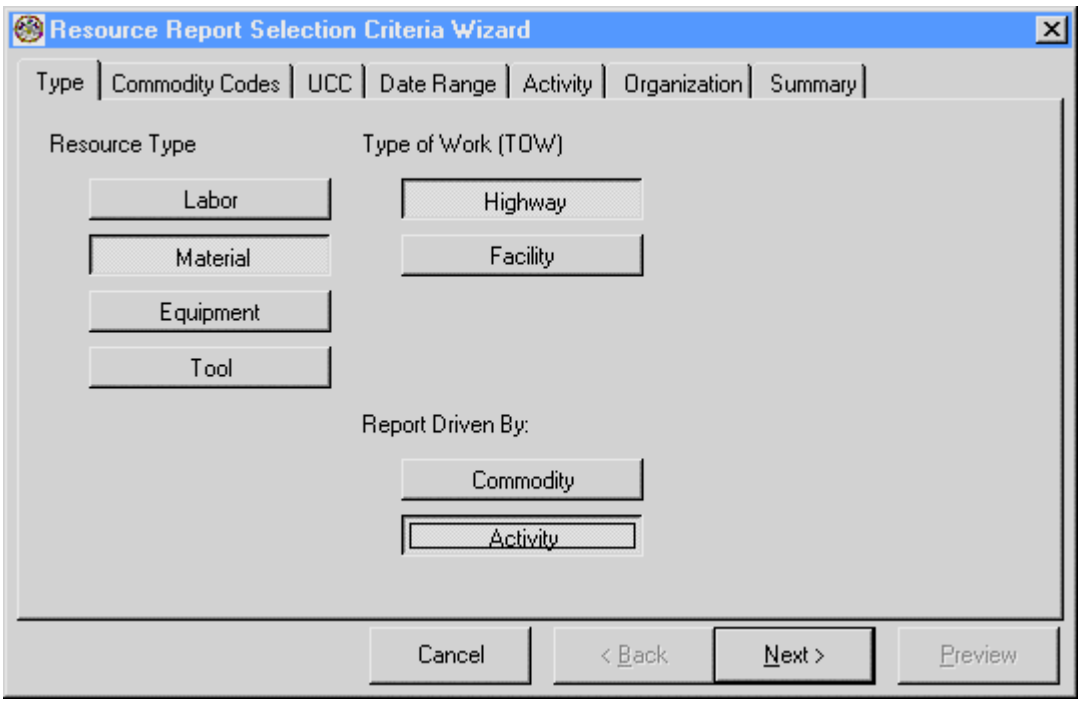


Figure 27.2 - Resource Report Type Criteria

The Labor Panel

If a Labor Resource Type is selected, the secornd panel of criteria is the Labor panel (**Figure 27.3).** Depending upon the Type of Work select the appropriate labor options.

Select **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit and return to the Main Menu.

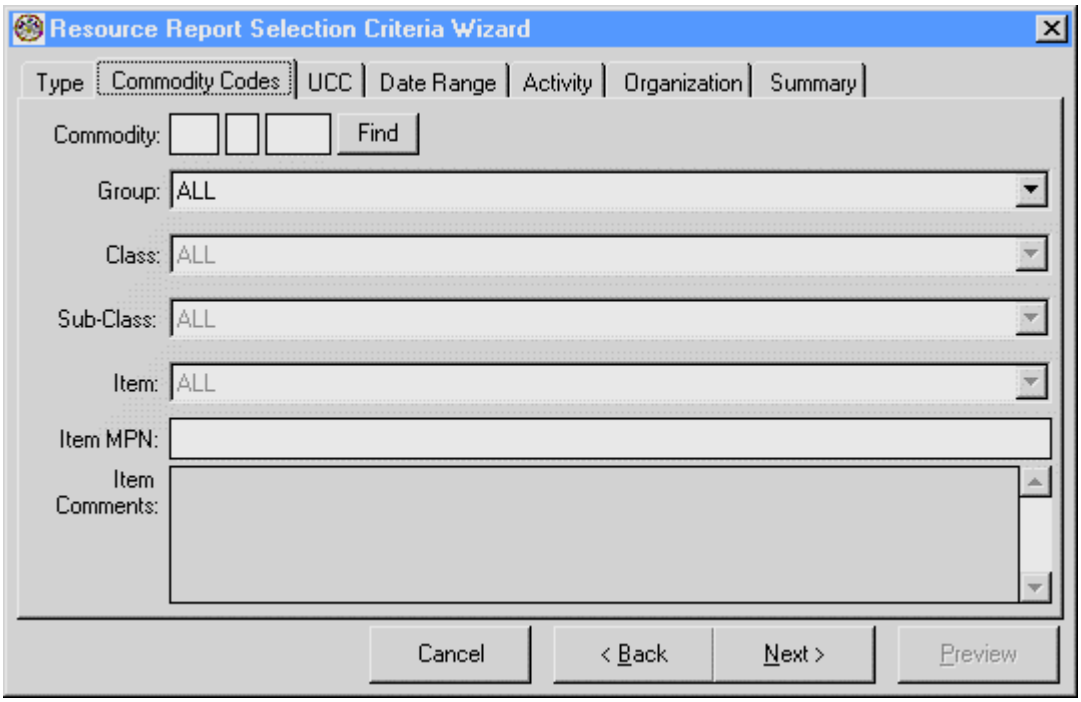


Figure 27.3 - Resource Report Labor Criteria

Commodity Code Criteria

For Material, Equipment, and Tool reports the user can specify commodity codes to include on the report (**Figure 27.4)**. By entering partial commodity codes, larger groupings of data can be reported on. Enter whatever level of commodity code is needed to properly filter the report.

Select **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit and return to the Main Menu.

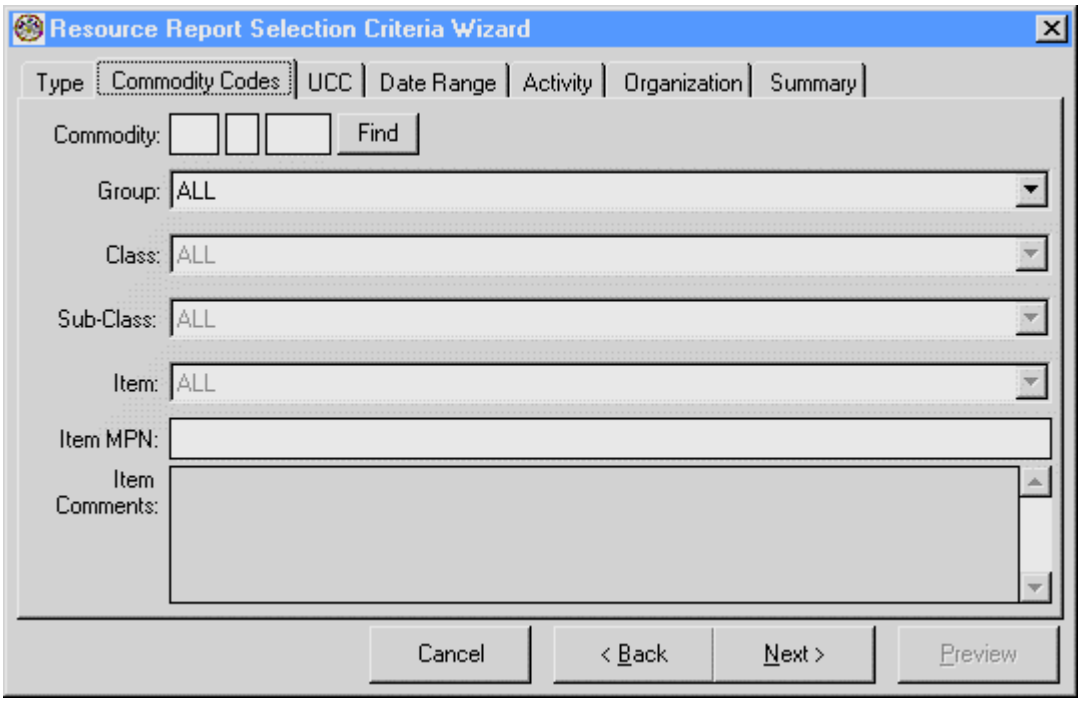


Figure 27.4 - Resource Report Commodity Code Criteria

UCC Criteria

Further filtering can be accomplished by the use of one or more UCC combinations (**Figure 27.5)**. All of the possible combinations are listed. The **Select All**, **Clear All**, and **Invert Selection** controls can be used to quickly select and unselect various groupings of the criteria.

Select **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit and return to the Main Menu.

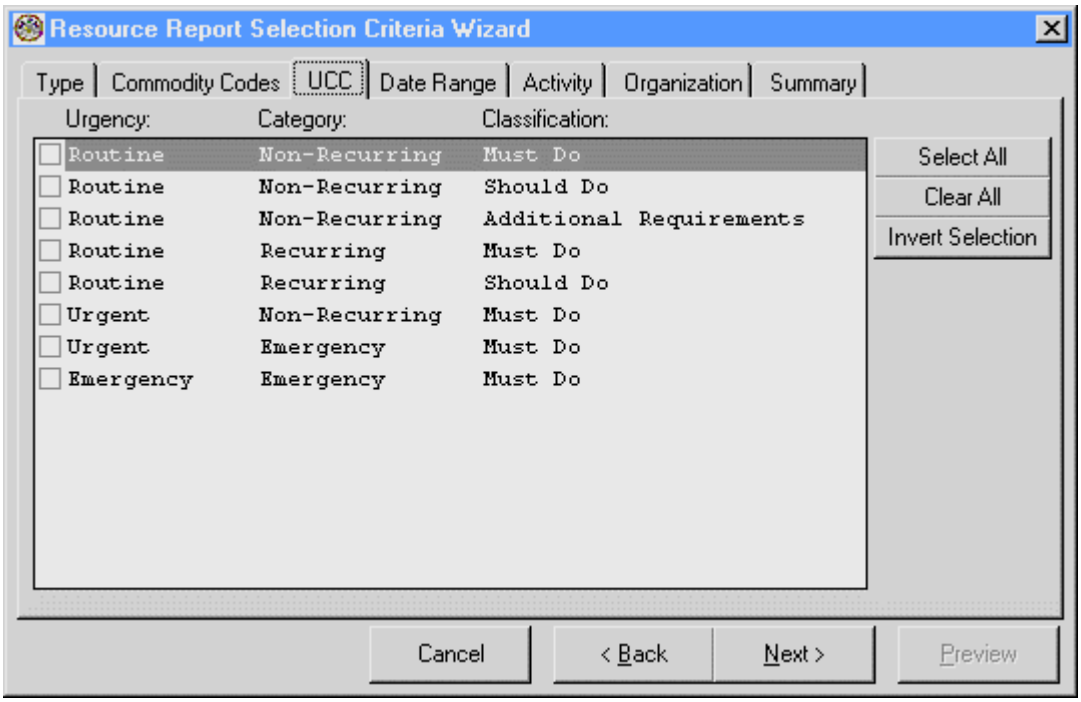


Figure 27.5 - Resource Report UCC Criteria

Date Range Criteria

Using the Date Range panel (**Figure 27.6)**, the user can specify a time frame for the report. A variety of options are listed to make the selection convenient.

Select **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit and return to the Main Menu.

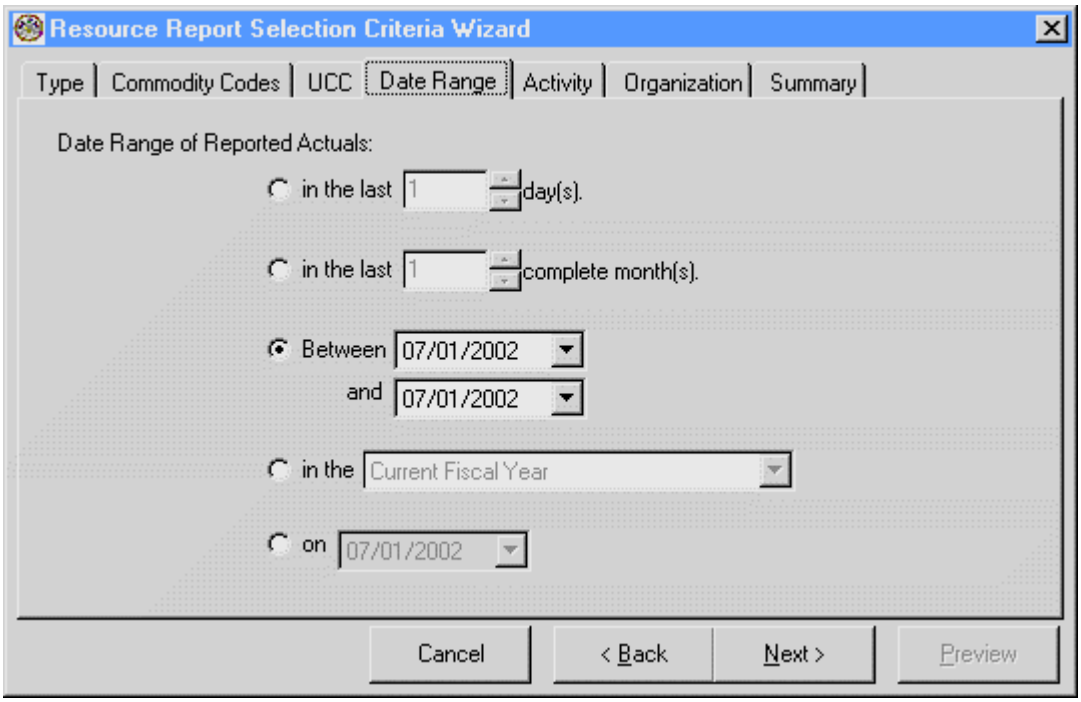


Figure 27.6 - Resource Report Date Range Criteria

Activity Criteria

The Activity Panel (**Figure 27.5)** contains a complete listing of all the Non-Recurring and Recurring Activities controlled by the Highway/Facility selection from the Type panel. The **Select All**, **Clear All**, and **Invert Selection** controls can be used to quickly select and unselect various groupings of the criteria.

Select **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit and return to the Main Menu.

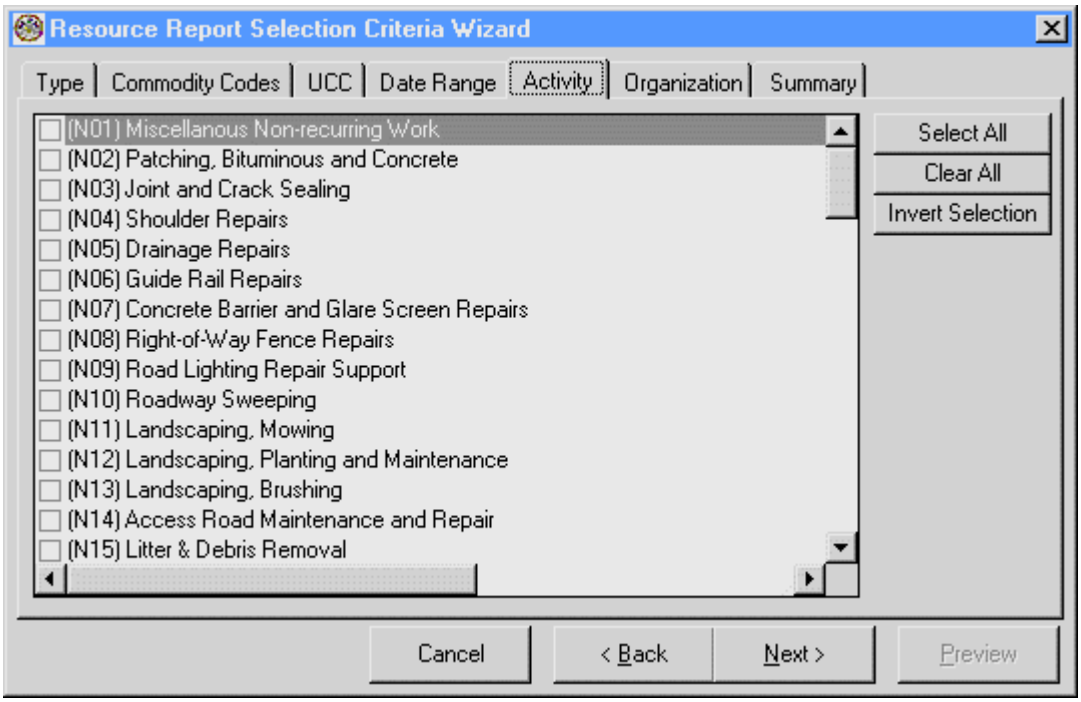


Figure 27.7 - Resource Report Activity Criteria

Organization Criteria

The Organization panel (**Figure 27.8**) controls the summerization level of the report. When selecting District, choose All or the desired District number. When selecting Section, choose the District first, then the desired Section.

Select **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit and return to the Main Menu.

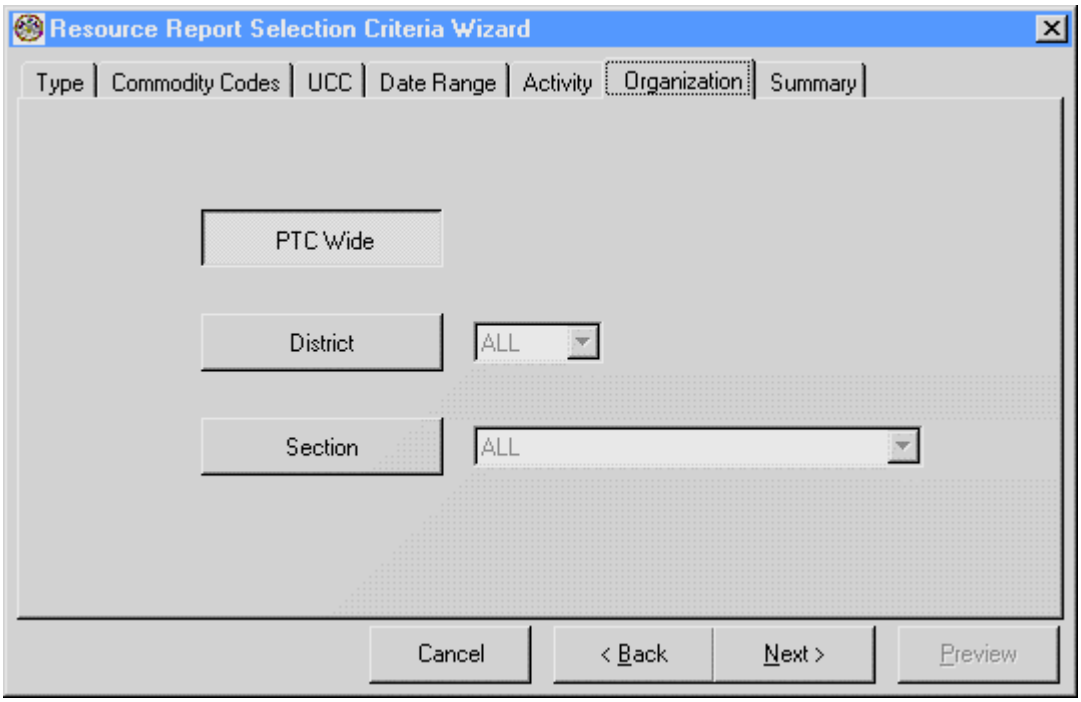


Figure 27.8 - Resource Report Organization Criteria

Summary Criteria Panel

The Summary panel lists all of the chosen criteria for review prior to processing the report. Select **Back** to return to the previous panel, **Cancel** to exit and return to the Main Menu, or select **Preview** to run the report which will open a separate Crystal Reports window for previewing the report prior to printing.

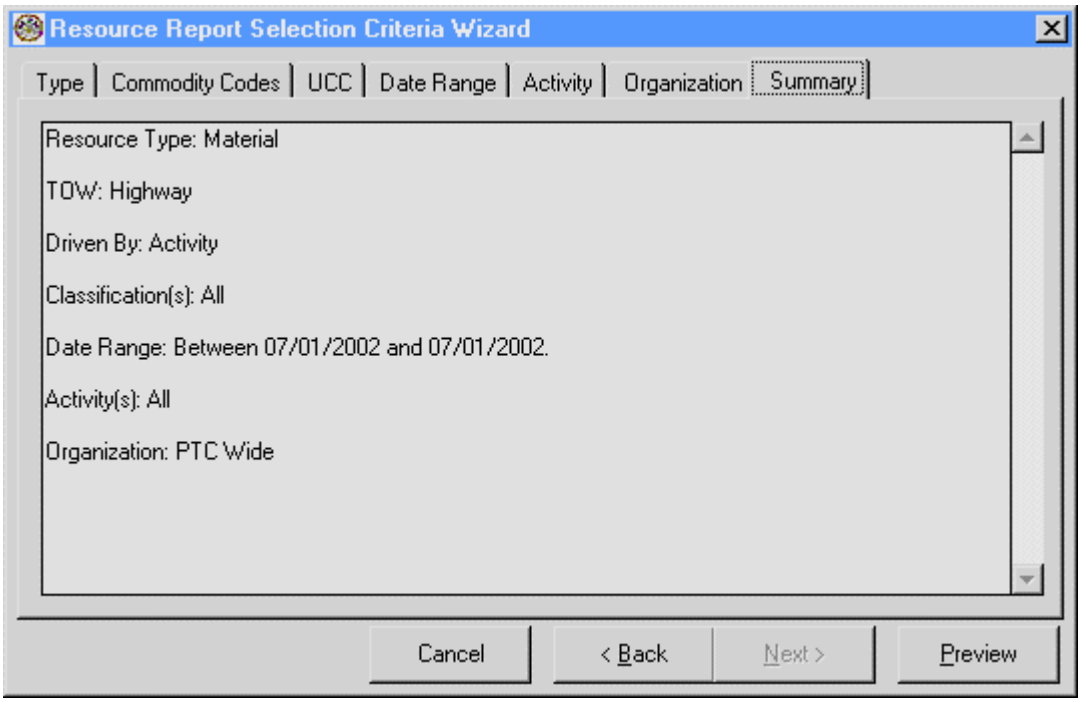


Figure 27.9 - Resource Report Summary Panel

Appendix
AWorkOrderPlanningWorksheet

Program: SOMS.exe
Report: WOWorksheet

Pennsylvania Turnpike Commission
Work Order Planning Spreadsheet

Request: 1711 Facility **Title:** Miscellanous: Install open/close switch from warehouse to lower building

Response Urgency: Routine	**Qualification Criteria:**	**Status:** Detail Plan Complete - Pending
District: Everett	**Structure:** Everett Main Store Room (Inventory)	
Facility: Everett Maintenance		**Milepost:** 0
Problem Description: Install open/close switch from everett werehouse to the lower building, so that garage door can be open & close from everett warehouse. This will provide excess for those employee's entrusted to load/unload material, pickup order, etc. without the exchange of key's. This will also prevent employee's from forgetting to return keys to warehouse.		
Date Created: 10/20/2000	**Requestor:** WALTOS, RAY	
Requested Completion Date: 11/15/2000	**Requestor Phone:**	**Prioritys Assigned: (IP, DP, Sched)** 12, 63, 0
Assignment: Not Confirmed	**Resource Assigned:**	**Authorized By:** dale hall

Planning Information **Category:** Non-recurring **Classification:** Must Do

Initial Plan Work Description:	
Initial Plan Impact Description:	
Comments:	
Detail Work Description:	
Activity:	**Funding: (RMF/Operating)**

	Operating

Labor

Labor Type	Carpenter	Electrician	Plumber	Welder
Rate	17.42	17.42	17.42	17.94
Qty	0	2	0	0

Month				
October-2000		16		
November-2000				
December-2000				
January-2001				
February-2001				
March-2001				
April-2001				
May-2001				
June-2001				
July-2001				
August-2001				
September-2001				
	0	16	0	0
Cost	0	278.72	0	0

Material

Class Code / Description	**UOM**	**Qty**	**Unit Cost**	**Total**	**PO No.**	**MR No.**
02/OUTLET/SWITCH BOXES AND CABINETS		1	150	150		

150

Equipment

Class Code / Description	**Qty**	**Days**	**Total**	**PO No.**	**MR No.**

0

Tools

Class Code / Description	Qty	Days	Total	PO No.	MR No.

0

Contractor
Description of Work

Vendor Name and Description	Total	PO No.	MR No.

0

Notes

Appendix B

Work Order Reporting Form

Program: soms.exe
Report: NewReportingForm.rpt

Pennsylvania Turnpike Commission
Work Order Reporting Form

Date: 10/07/2002
Time: 3:59:57PM

Work Order No: 8626 Highway Interchange Cleaning (Booth & Canopies)
District: 5
Milepost: Section: 352 Slatington

Date: _____

Detail Work Description:

Work Instruction

Labor	Assigned Crew	Reg. Hrs	OT Hrs	
RoadCrew				
Other				

Production Units	Units Completed
Interchange Lanes	
Total Crew Size	

Materials		UOM	Units Used
103-62-0044	SOLVENT, TAR REMOVER, ORGANIC ORANGE	GAL	

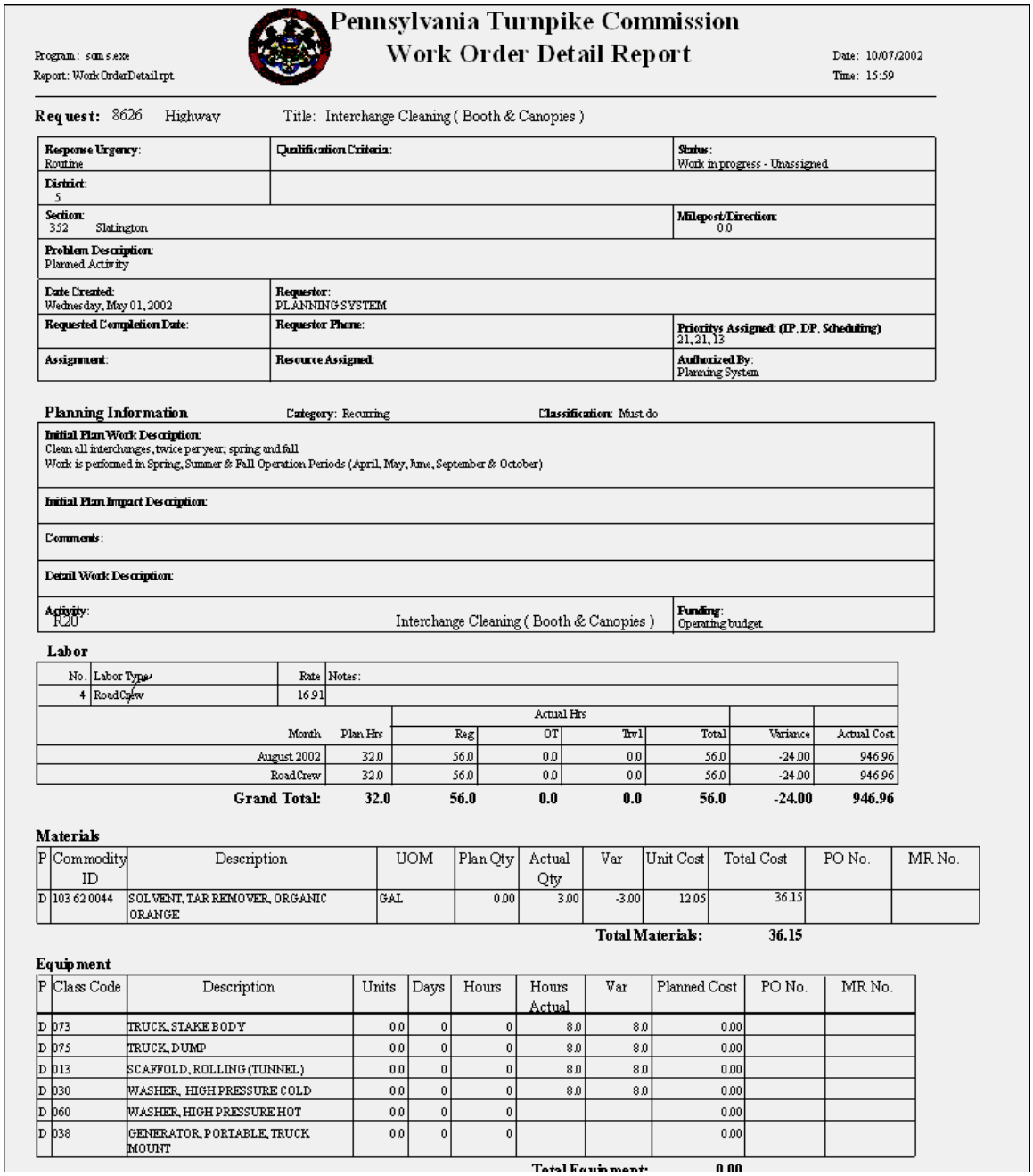
Equipment		Hrs Used
013	SCAFFOLD, ROLLING (TUNNEL)	
030	WASHER, HIGH PRESSURE COLD	
038	GENERATOR, PORTABLE, TRUCK MOUNT	
060	WASHER, HIGH PRESSURE HOT	
073	TRUCK, STAKE BODY	
075	TRUCK, DUMP	

Tools	Hrs Used

Remarks:

Appendix C

Work Order Detail Report



Pennsylvania Turnpike Commission
Work Order Detail Report

Program: soms.exe
Report: WorkOrderDetail.rpt

Date: 10/07/2002
Time: 15:59

Request: 8626 Highway Title: Interchange Cleaning (Booth & Canopies)

Response Urgency: Routine	**Qualification Criteria:**	**Status:** Work in progress - Unassigned
District: 5		
Section: 352 Slatington		**Milepost/Direction:** 0.0
Problem Description: Planned Activity		
Date Created: Wednesday, May 01, 2002	**Requestor:** PLANNING SYSTEM	
Requested Completion Date:	**Requestor Phone:**	**Priority Assigned: (IP, DP, Scheduling)** 21, 21, 13
Assignment:	**Resource Assigned:**	**Authorized By:** Planning System

Planning Information **Category:** Recurring **Classification:** Must do

Initial Plan Work Description: Clean all interchanges, twice per year; spring and fall Work is performed in Spring, Summer & Fall Operation Periods (April, May, June, September & October)
Initial Plan Impact Description:
Comments:
Detail Work Description:
Activity: FC20 Interchange Cleaning (Booth & Canopies) **Funding:** Operating budget

Labor

No.	Labor Type	Rate	Notes:
4	RoadCrew	16.91	

		Actual Hrs					
Month	Plan Hrs	Reg	OT	Trvl	Total	Variance	Actual Cost
August 2002	32.0	56.0	0.0	0.0	56.0	-24.00	946.96
RoadCrew	32.0	56.0	0.0	0.0	56.0	-24.00	946.96
Grand Total:	**32.0**	**56.0**	**0.0**	**0.0**	**56.0**	**-24.00**	**946.96**

Materials

P	Commodity ID	Description	UOM	Plan Qty	Actual Qty	Var	Unit Cost	Total Cost	PO No.	MR No.
D	103 62 0044	SOLVENT, TAR REMOVER, ORGANIC ORANGE	GAL	0.00	3.00	-3.00	12.05	36.15		
						Total Materials:		**36.15**		

Equipment

P	Class Code	Description	Units	Days	Hours	Hours Actual	Var	Planned Cost	PO No.	MR No.
D	073	TRUCK, STAKE BODY	0.0	0	0	8.0	8.0	0.00		
D	075	TRUCK, DUMP	0.0	0	0	8.0	8.0	0.00		
D	013	SCAFFOLD, ROLLING (TUNNEL)	0.0	0	0	8.0	8.0	0.00		
D	030	WASHER, HIGH PRESSURE COLD	0.0	0	0	8.0	8.0	0.00		
D	060	WASHER, HIGH PRESSURE HOT	0.0	0	0			0.00		
D	038	GENERATOR, PORTABLE, TRUCK MOUNT	0.0	0	0			0.00		
							Total Equipment:	**0.00**		

Request: 8626 Highway Title: Interchange Cleaning (Booth & Canopies)

Tool

P	Commodity ID	Description	Units	Days	Hours	Hours Actual	Var	Planned Cost	PO No.	MR No.

Total Tools:

Contractor
Scope of Work:

Description of Work:

P	Vendor Name and Description	Cost	PO No.	MR No.

Total Contractor:

Notes
08/26/02 The men are on night work and did all the lanes today (5) This completes washing the booths for this year. RTH

Inspection Information
Inspected: (Y/N) Inspected By:

Production Units

P	Description	Planned	Completed
D	Interchange Lanes	5.00	5.00

Work Order Total Cost: **$983.11**